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ORIGINAL COMMUNICATIONS.

THE TREATMENT OF EXOPHTHALMIC GOITRE BY ELECTRICITY.

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To those skilled in the treatment of obscure nervous disorders, it may seem an unwarranted assertion that Graves' disease is a malady unwelcome to the general practitioner, as being one not easy to treat, and one which therefore does not reflect favorably on his skill; and in this I do not mean to say that the problems in disease encountered by the family practitioner are, as a rule, easy, and that his burden is, per consequence, light; nor do I imply, on the other hand, that it is either necessary or desirable that difficult cases of any kind should be in general turned over to the specialist. On the contrary, two of the cases narrated herein were, at one time during their progress, under the care of well-known neurologists, whose success was not better in the end than that of the gentlemen from whose practice the patients originally came. In many standard works, however, the prognosis of this distressing form of goitre is set down as very favorable; yet the identical treatment recommended by the authors has over and over again failed to either cure or to afford decided relief in the hands of others; and such a state of affairs is by no means encouraging,—to the young practitioner particularly. The action of every drug in the Pharmacopœia is well known to be influenced by the idiosyncrasy of the patient at times, just as in food, where, according to an old saying, "one man's meat is another man's poison," and the occasional failure to secure prompt or radical amendment in the variety of goitre under consideration may of course be due largely to this fact. At any rate, the cases herein reported went from bad to worse, under excellent management, until electrical measures were instituted; and as the profession at large is by no means agreed on the value of this therapeutic agent, they are presented with a view to encourage further investigation in a field which is wide enough to afford more definite conclusions than have heretofore been had.

E. M. H. menstruated for the first time in her fourteenth year, and enjoyed, as she did before that event, perfect health until the next year, when, from supposed over-exertion at a picnic, she complained of cardiac palpitation on slight exertion, carotid throbbing on assuming the horizontal posture at night, within some six months thereafter increasing dyspnoea, and within a year from seizure perceptible thyroid enlargement. Treatment was instituted shortly after her first complaining, digitalis, aconite, and belladonna being employed. Her general health precluded iron and other tonics, but, exophthalmos becoming evident about a year after first complaining, she was put upon iron and arsenic. Her functions were all in perfect accord, yet her goitre steadily increased despite treatment. She tried Saratoga and other spas without benefit, and then went under the care of a specialist, in whose hands a cure was virtually guaranteed. Ergot internally and hypodermically into the tumor, bromine and iodine, cannabis Indica and veratrum, all failed to afford relief, and, her dyspnoea having at the end of the third year become almost unbearable, additional advice was procured. I have been unable to secure a history of what measures were adopted after this time, but the failure to do so is unimportant, as matters were in no way improved. Through a relative whose family I attend, she casually introduced the subject to me, and, her usual attendant and the consultant first called in willingly resigning the case, and she declining further attention from the second, I took charge of what had in the past at any rate been certainly an unpromising problem. With drugs faithfully tried, almost nothing had been accomplished: their best service had been merely temporary. All medicinal measures were at once abandoned. Beyond some dyspeptic symptoms, due doubtless to heroic bromide prescriptions, and the natural depression of spirit at what seemed a lingering death, she was in other respects in better health than might be expected in one whose life was, as she described it, a burden. She had at times a tendency to menorrhagia; otherwise her menstrual phenomena were normal. Her pulse varied from 120 to 155. There was hypertrophy, though not excessively so, of the heart, but no pronounced valvular le-

sion. The eyeballs were decidedly prominent, the lids barely covering them whilst the patient was asleep. The neck measured seventeen and a quarter inches round,—an increase of how much not then known. To test the relative value of galvanic and induction currents, she was faradized daily for a week, without any benefit either apparent or felt. The current was applied to the cervical sympathetic, and centrally to the solar plexus. Then galvanism was instituted, the applications being made in a similar manner,—first to the sympathetic, one pole being placed centrally at the base of the brain, and the other on the anterior border of the sterno-mastoid, it being moved from the auriculo-maxillary space down to the clavicle, and up again first on one side and then on the other. After the first week, central galvanization was added, one pole over the solar plexus, the other traversing the spinal column. The duration of the applications varied from five minutes at first to half an hour at farthest, the strength of current being regulated according to circumstances, usually from ten to fifteen cells comprising the circuit. More than twenty elements provoked giddiness at any time. After the second week amelioration of her dyspnoea and circulatory disturbance was acknowledged voluntarily, and in four weeks the neck was one inch less in circumference; in six weeks the ocular protrusion was notably lessened, the night was comfortably spent invariably, the leaning towards excessive menstrual flow was checked, the appetite was improved, and her natural buoyancy of spirits was rapidly returning. In eight weeks the neck was two and a half inches smaller, and the pulse was reduced under 100, except under great excitement by fast walking up-stairs and the like. In thirteen weeks the neck was not noticeably enlarged, and the exophthalmos was so slight as to be unimportant. It remains about the same now, two years after her recovery, and no one would see anything peculiar in her appearance. The collar fits her loosely at thirteen inches. After the third month the applications of the battery were reduced to bi-weekly, with short séances of from five to ten cells, and at the end of six months she was discharged and considered herself cured, in which opinion I concurred, and nothing has as yet led me to alter my idea. She remains

unmarried, and what may result from a change in her sexual relations remains to be seen,—a matter of interest to me, as the next case undoubtedly shows that in some persons, at least, sexual excitement has an unfavorable effect upon Basedow's disease.

F. A., 20 years old, consulted me because of a gradual enlargement of her neck, and, as her mother had for many years labored under a fibro-cystic goitre, she became somewhat anxious as to the probable outcome of the deformity, especially as she was shortly to be married. The lady was a victim to neuralgic dysmenorrhœa, with cervical uterine congestion, and associate leucorrhœa, which appropriate local treatment relieved. Her dysmenorrhœa was greatly reduced by quinia and arsenic, but her goitre, although not decidedly worse so far as thyroid protrusion went, was aggravated by all the symptoms of the exophthalmic type within six months after coming under my care. Space need not be taken to describe her symptoms in detail: suffice it to say, her marriage was postponed. She was placed upon full doses of digitalis and iron, all exciting causes restrained, and under this, with the continuance of the arsenic and quinia, to which ergot was shortly added, in a few months her most aggravated symptoms were relieved. Every indication of a speedy cure being observed, for good reason her nuptials were permitted. For several weeks preceding her marriage, the disease was to herself, her parents, and myself daily disappearing; it was most certainly at bay. On her return from the bridal tour, three weeks subsequently, in every particular she was worse; the neck was again enlarging, the pulse was up above the hundred, the eyes were staring, carotid pulsation was overmarked, and rest from any but the slightest exercise was imperative. Although no uterine disease existed, beyond a little pre-menstrual pain, every act of coition intensified the cardiac disorder, and the increased swelling of eyes and thyroid alike were pronounced at my morning visit, had this act occurred during the preceding night. The neck, by careful measurement on such occasions, was enlarged a full half-inch, and remained so for about forty-eight hours, when it would disappear, or return, strictly speaking, to the usual circumference as existing before the sexual intercourse. It does not appear that this aggravation was due simply to ex-

citement, because sexually neither of the parties was unduly ardent either before or during the act, nor did any exhaustion follow cohabitation, such as would present itself under undue stimulation. The phenomena to me were strictly due to reflex action through the sympathetic. Marital relations in this respect were suspended, and all medicines stopped. She was placed at once under galvanism daily, but, unlike the first-noted patient, she bore easily twenty or thirty cells without discomfort. The applications were managed as in the case of Miss E. M. H., and were kept up for one month, when very decided improvement was in all respects manifest. Intercourse was permitted for a few times without apparent ill results, but then stopped, and the electrical treatment reduced to four applications each week, and at the end of four months she was completely free from any evidence of her original difficulty. She has had no return in now nearly two years, but she either has, or imagines she has, a fulness of the throat always during the morning succeeding connection, especially in case of previously prolonged abstinence. Her menstrual derangements are gone, and her general health is excellent. She has never been pregnant. Although *temporary* increase of size in the thyroid gland under sexual excitement has been referred to by a few writers, the fact is generally unknown to the profession at large, and, as I am fully satisfied—not alone from this case, but from other sources of information—that such is the fact, I note the point particularly.

Mrs. S. L. was referred to me by a friend, with a view to treatment by electricity. She had been a sufferer for something over two years, and was becoming worse daily. The pulse averaged 120, eyeballs were decidedly prominent, palpitation and cardiac hypertrophy pronounced, the neck increased by three and one-half inches, menses in abeyance, and general health visibly reduced. She had been under good professional care both by her own regular attendant and his *confrère*, but recovery seemed uncertain, the disease holding its own for some months before I saw her, and a repulsion being developed towards further medication. Faradism had been tried at one period in her progress without benefit, but the method and mechanism employed were not reliable. She declared

herself, however, relieved of much oppression for an hour or two after these applications, and to fully test the matter she was thoroughly treated by induction currents, locally and generally, for one month, nothing else being done beyond attention to diet and rest. There was now an evident amelioration, not alone of her distress, but her personal appearance was obviously improved; yet, although satisfied with this gain, it was deemed better to adhere to galvanism as in the first two cases narrated, because of its more rapid action as a curative agent and its undoubtedly greater adaptability for the end aimed at. Double the benefit at least was attained at the end of the next month under the constant current as compared with the faradic. Without entering into details, which would merely recapitulate largely what has already been written, suffice it to say that in four months she was apparently in her usual health as before the advent of her goitre. There yet remains some cardiac hypertrophy, but palpitation is rare, even under excitement. Beyond this she would stand rigid examination without fault being detected. Menstrual disturbances were frequent before her illness, now none exist. For eleven months she has remained well and able to see to her family cares, which are somewhat exacting.

A single swallow does not make a summer, and these cases, although good examples of the value beyond question, in my opinion, of electrical treatment, do not, of course, suggest that other means are unreliable and that this method is infallible. I am aware that electricity has failed in competent hands to relieve, or rather radically cure, exophthalmic goitre, and that undoubted cures have been wrought without it, but it has its place, nevertheless, in therapeutics, although, like many another good thing in the long array of remedies, it lies buried out of sight to the majority of the profession. The empirical manner of its use in disease has led many thoughtful men to reject it, and the inherent difficulty of rational employment and care of apparatus deters others from thoroughly testing this invaluable ally. Doubt has also been expressed by gentlemen supposed to be familiar with practical electro-therapeutics as to successfully reaching the sympathetic, particularly in the solar plexus, by any form of current; and as intelligent operators are opposed to hap-hazard methods

of any kind, it may be that the failures alluded to above have arisen from doubts of this nature, or from a loose attention to the procedure, if tried. From the anatomical arrangement of the neck, it follows that in influencing the cervical sympathetic the pneumogastric also must be involved, and it only needs well-conducted experiments to show that the heart, and therefore the entire circulation, is readily acted upon by either current. To myself the galvanic seems the better adapted, it being prompter in action, more comfortably borne, and showing more definite and durable ultimate results. Although not at all affected by goitre of any kind, I have suffered from functional palpitation for many years, and at all times the cardiac excitement is readily controlled by moderate currents of from twenty-five to forty modified Daniell's, developing an electro-motive force of from eight to twelve milliwebers. That the sedation is not resultant from preconceived ideas of my own is evidenced by precisely similar effects being had in patients under treatment for other affections, whom I always utilize experimentally whilst able to do so. Whilst galvanism at times stimulates the heart to increased action in a limited way, its ultimate action, even in such persons, is to soothe; and no better test can be made than to personally undergo general applications before retiring, after an exhausting day's work, or when ruffled by the cares of serious cases or the quips of ill-natured and ungrateful people (if you are open to such impressions). Other cases in the practice of friends, which I have been favored with seeing, and which were managed in whole or in part as described, have terminated favorably, and in exact proportion as the electrical manipulations were more or less perfect.

Since the above was in type, a case at present under my charge, which is satisfactorily progressing towards recovery, has been treated by *static* electricity, the machine employed being a "Toepfer" modification of the well-known Holtz apparatus. The patient is insulated, thoroughly charged by Radcliff's positive method, and sparks drawn from the thyroid. Galvanism is, as usual, mainly relied upon, but there is without doubt a notable acceleration in her recovery since instituting treatment by *static* applications. A report of several cases of varying nervous affections thus

treated was published in another journal recently, and results of further investigation in this direction will be given in a future article.

246 NORTH TWENTIETH STREET.

THE DEFECTS IN OUR PRESENT MEDICAL EXPERT TESTIMONY; WITH A PROPOSED REMEDY.

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THAT the medical expert testimony of the present day is defective in many particulars is a fact so generally admitted by both court and counsel as to have occasioned a very general distrust in such evidence among the legal profession. This is unfortunate, since very often, in criminal cases more particularly, the testimony of the well-instructed medical expert may shed a flood of light upon abstruse and difficult points, which otherwise could not be understood by either court or jury. Whence arises, then, the apparently growing distrust of this sort of evidence in the minds of men whose whole mental training leads them to subject every sort of testimony to the most rigid scrutiny? I think the answer to this question may be referred to two causes: *the character of the experts themselves, and the vicious mode of using such testimony by counsel.* On each of these points I desire to offer a few remarks.

First, as to the character of the expert. I particularly refer to his *professional* character. I need hardly stop here to remind the reader that an "expert" witness differs from an ordinary witness, in not testifying to mere facts,—such as what he has seen or heard of the case,—but he gives his *opinion* on the facts testified to by others. As the term implies, the "expert" must be *skilled* in the particular matter in which his testimony is required: he must have made it his special study. But how many of our criminal trials, especially, are disgraced and degraded by what has been sneeringly termed the *war of the experts!* It is a notorious fact, that in nearly every criminal trial, and in many civil cases involving the question of insanity,—particularly will cases,—it has become too much the fashion to pit one medical expert against another; sometimes there may be several on either side, each one deliver-

ing his "opinion" diametrically opposite to that of his opponent. Undoubtedly this defect is partially to be ascribed to the faulty manner in which these experts are employed by counsel; but it is much more largely due, in my opinion, to the faulty character of the experts themselves,—the incompetency of the individuals who have voluntarily thrust themselves into this responsible position. For, be it remembered, neither the mere title of doctor, nor even the well-earned reputation of the general practitioner, does by any means imply proficiency as an *expert*. For example, in a homicide case, involving the life or death of the prisoner, where the main evidence of the prosecution depends upon the identification of certain suspicious stains upon the clothing, or upon a weapon discovered close by, who but the well-practised microscopist shall presume to solve the all-important question? So, in a poison case, who but the practised toxicologist shall venture to give an "opinion" as to the real cause of death, or of the nature of the alleged poison? Who but he is competent to decide the finely-balanced question whether the symptoms and pathological appearances were really due to poison or disease? And who but he shall presume to criticise the chemical analysis, and detect and expose the blunders of careless and incompetent experimenters, which, but for his sagacity, might have doomed an innocent victim to death?

All this is plain enough; nobody will dispute it. Yet the fact remains as notorious as ever that medical men of excellent general professional character, but who have not made these branches of science subjects of special study, are tempted to place themselves on the witness-stand, in certain grave trials, in opposition to others of acknowledged skill and reputation; and the lamentable result is that as the court does not, or will not, see the difference between the good "expert" and the bad,—the genuine and the false,—being already prejudiced against all alike, it will treat all alike; and regarding one as good as the other, it will so state it to the jury in the final charge. This is no fancy sketch: I have known the counterpart in my own experience, in a case in which the prisoner was convicted and sentenced to punishment upon just such "incompetent" expert testimony, as was afterwards abundantly proven. Now, can any one doubt that, if

all the experts engaged in any cause were persons of equal skill and experience, there would be far less likelihood of a conflict of opinion, than where some ignoramus, confiding in his general knowledge, unhappily displays himself for the occasion, and undertakes to differ from his acknowledged superiors on the other side? If, for instance, *all* the experts concerned in a poison-trial were men equally well grounded in every department of toxicology, as also in their general training as physicians, it is scarcely conceivable that they should differ much, if, at all, as to the proper modes of testing, and as to the results attained. Certainly we should then witness nothing of the disgraceful "war of the experts," before alluded to.

Another well-founded allegation is that in certain criminal and will-cases, experts are sometimes selected by opposing counsel expressly for the purpose of supporting particular views, on account of their known bias to some "hobby" or preconceived notion. This is unquestionably a great evil, and if not remediable, it might of itself be sufficient to destroy all faith in medical expert testimony. But is it remediless? We may hope not, since the cure for it seems simple enough, namely, that *all* who undertake to act as experts shall be thoroughly skilled in the matters on which they are to give testimony, and shall be completely free from any bias or prejudice. Another part of the cure consists in the avoidance by counsel of the vicious practice above alluded to. Occasionally, however, the difficulty would seem to be with the court, doubtless through some distorted ideas on the subject. Thus, I have known, in a certain criminal case, in which there happened to be two medical men acting as experts on one side, and but one on the other (although the latter was admitted to be the more thoroughly trained witness, both by practice and position), the judge took the ground, and told the jury, that one expert was just as good as another; and that, as in this case there were two against one, the majority ought to carry the day; and so he ruled!

There is a graver fault still, chargeable against medical expert testimony, though we may hope it is not so prevalent as the others, namely, where the experts make their views the subject of barter to the parties employing them, and where their fees are made "conditional" on the influ-

ence of their testimony. Certainly such dishonesty cannot be too severely reprobated. But I would state my convictions that no medical man of principle would ever lend himself to such dishonorable traffic. That such instances may have occurred, I do not undertake to deny; unhappily, the medical as well as the legal profession is occasionally disgraced by such unprincipled charlatans, who not infrequently connive together in their nefarious work.

It has always seemed to me that the true method for the expert to pursue, before engaging in any case, is to make himself thoroughly master of all its bearings. Suppose, for example, that his services are desired by the defence in a poison case, or in any other case of homicide. Before consenting to undertake it, he should carefully examine (which he is privileged to do) the sworn reports of the physicians who made the post-mortem and chemical examinations of the deceased, together with the line of treatment adopted. If, in his opinion, from the character of these investigations the charge of murder cannot be logically sustained, either through a defective autopsy, a careless, imperfect, or unskillful chemical analysis, or an improper medical treatment, then he is not only justified in taking up the case for the defence, but he can hardly escape the responsibility of not so doing, since otherwise a most grievous wrong might be perpetrated upon a possibly innocent being.

The important question now occurs, Is there no remedy for these admitted evils in our present medical expert testimony? I reply, None in our country, as the law stands at present. With us, the courts exercise the greatest latitude in the matter of medical experts, allowing the title and the prerogatives to any and every person who has assumed the name and profession of doctor. To be sure, the stereotyped question is usually put to the witness offering himself as an expert, if he has given particular or special attention to the matter now under consideration? but, of course, the ambitious witness always supposes that he has done so, and gives an affirmative reply. But there is no positive guarantee that this is so; indeed, in the majority of cases the chances are against it.

The only true method, it seems to me, of meeting the difficulty is to adopt an arrangement somewhat similar to the Prus-

sian system, which is admitted by all legal physicians to be the best known, although perhaps not absolutely perfect. A modification of this, I think, might readily be engrafted upon our American practice, somewhat after the following plan. Let there be appointed by the proper authorities, for each of our States, one or more thoroughly educated practical physicians, properly trained in all the details of medical jurisprudence, including toxicology. These shall be known as the "State Medical Experts." The duties of such an official shall be to attend at every criminal trial in his district, when summoned by the court, *as the skilled witness of the prosecution*. He shall sit with the judges throughout the trial as the *amicus curiae*, giving special attention to such points as may require the professional assistance of medical experts, so that he may enlighten the court and jury on the technical aspects of the case. He shall be prepared to make all the requisite medical, microscopic, and toxicological investigations in any case requiring them. Thus, in poison cases, the district attorney would be saved the annoyance and expense of hunting up a suitable toxicologist. By his expert testimony the prosecution would always be guided. There would be no necessity of appeal from his decision.

He should possess a chemical laboratory, and all other appliances necessary to the thorough fulfilment of his duties. Although summoned by the State, he is by no means to be regarded in the light of a partisan, any more than the judge upon the bench. He can have no temptation to a bias for either side. He would render his "opinion" grounded solely upon truth; and both his moral and professional character and acquirements should be such as to preclude the possibility of error, so far as human infirmity may admit.

In most criminal trials the testimony of such an official expert, commanding, as he ought to do, the respect and confidence of all parties, would be deemed fully adequate to settle all scientific questions by both sides,—the defence as well as the prosecution. But there would, doubtless, arise some cases in which the defence would claim the right (which, of course, should always be conceded) of employing their own expert witnesses. This, however, need not in the least interfere with the State officer, since, if the former be thor-

oughly competent experts, they will be the less likely to differ with the latter, as I have before attempted to show ; and even if they should perchance differ with the State expert, the prisoner would still enjoy all the advantages which he would possess under our present system.

In States as populous as Pennsylvania, there should, I think, be at least two State experts,—one for the eastern and one for the western district. The salary of such an official should, of course, be sufficiently ample to command the very best talent, inasmuch as the medical officer would necessarily be compelled to relinquish all practice, and devote his time exclusively to his arduous State duties. But even in an economic point of view the State would probably be the gainer, inasmuch as the aggregate yearly amount which the various counties of the State are compelled to pay out for toxicological and other professional examinations in their respective criminal trials, would equal, if not considerably exceed, even a liberal salary allowed to the State expert.

Two difficulties only present themselves to my mind in the way of practically carrying out the above system in the different States of our country, and these, I believe, are by no means insuperable. The first and greatest difficulty, I presume, would be in the mode of appointment of the State official. Unquestionably, such a dignified office should be lifted high above all political favoritism. It should be bestowed only upon the most competent. But who shall decide this most important question of competency? Obviously, *not* the legislature, for it can have no means of judging of qualifications of such a character, except through the representations of constituents ; and everybody knows that all such representations must partake largely of the worst forms of political bias. Neither should the responsibility be laid upon the governor of the State, for a like reason. The State Medical Society might by some be deemed the proper body at least to suggest the suitable appointee to the civil authority ; but I fear that there might be, even in this most respectable body, some risk of cliquism, ring-influence, or favoritism. On the whole, I believe that the safest body with whom to lodge the responsibility would be the judges of the Supreme Court of the State. Their high official position places them, almost cer-

tainly, beyond the risk of foreign sinister influence in such a duty. They might act in full council, after due consideration of the merits of the different candidates, and their decision, to be determined by ballot, would doubtless be regarded as impartial, and would be accepted as satisfactory by all.

The other objection (as some might consider it) might be the difficulty, and even, at times, the impossibility, of the State expert's being able to answer all the calls of the different criminal courts of his district. Of course he could attend only one at a time ; and a difficulty would arise if two or more trials were going on simultaneously. This would have to be remedied either by the appointment of additional State experts in very populous districts, or by a mutual arrangement among the different county criminal courts; so that the cases might not interfere with each other.

I have given to this subject of Medical Expert Testimony considerable thought and attention, and from a pretty extensive experience I am led to believe that the plan above suggested, with possibly some modifications, is the one best adapted to remedy the evils of our present imperfect system. I should be glad if these remarks would have the effect of stimulating the ideas of such of the readers of the *Medical Times* as feel an interest in this most important subject, so that we might have the benefit of their views in a future article.

316 SOUTH TWENTY-FIRST STREET.

CARBOLIC ACID APPLICATION TO ERYSIPelas.

BY S. J. RADCLIFFE, M.D.,
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A N abstract in the *Philadelphia Medical Times* of February 26, translated from an article in the *Deutsche Med. Wochens.* of January 22, under the title of "Carbolic Acid Application to Erysipelas," giving a formula "which has been employed for several years by Dr. Rothe, of Altenburg," to arrest the course of erysipelas, reminds me of a severe case of erysipelas of the right lower extremity (*E. ambulans?*), just convalescent, in a woman, Irish, of good constitution, but rather feeble from age, over eighty years old, which began as a central point in a large, inflamed bunion on the metatarso-

phalangeal articulation of the right great toe and extended over the entire limb to the abdomen and over the buttocks, a large bed-sore rapidly forming over the sacrum, which was treated successfully with carbolic acid and olive oil, after other applications had seemed to fail to benefit the case.

I first saw the case February 3. She had been suffering for some days from a large inflamed bunion on the large articulation of the right great toe, which the family undertook to treat with some simple remedies. Finding the condition of the woman getting materially worse, the toe and foot assuming an alarmingly erysipelatous condition, I was sent for.

I found the foot and leg, up to and a little above the knee, uniformly red, shining, tense, hot, tender to the touch, and largely swollen, the cellular tissue and the derma infiltrated and pitting on pressure, pulse 98, temperature 101.5° , tongue furred, mouth dry, thirst, bowels open, urine not free, high-colored, depositing urates, some hebetude, and considerable indifference as to her condition, especially as to her evacuations, which she would pass involuntarily if not watched.

The case looked so unpromising, considering her age and surroundings,—though I had seen her come through safely several severe attacks of illness,—that I notified the family of the danger attending the disease and of the small chance she had to survive the attack.

I began the treatment, as is my custom, with non-irritating applications to the inflamed parts, such as wheat flour, starch powder, or zinc oxide and starch powder,—believing these, after much observation and experience, to be the best,—directing the zinc oxide and starch powder, as in this case, to be thickly and thoroughly dusted over the surface with an ordinary powder-puff, and ordered the conventional muriated tincture of iron and sulphate of quinine to be given every three hours, alternated with half-ounce doses of the liq. ammoniae acetat., and fluid diet of milk and beef-tea.

I continued this treatment until the fourth day, with no apparent amendment of the symptoms, the erysipelatous inflammation having advanced, step by step, by gradual and distinct extensions, above the knee to the middle of the thigh, large red spots appearing above, and the lower bor-

ders approaching and filling in the healthy skin, and the lymphatics were swollen and tender and the glands enlarged. I now directed the foot and lower part of the leg to be enveloped with lint saturated with dil. sol. lead acetate, continuing the dusting the rest with the zinc oxide and starch powder, and continuing also the iron and quinine alternated with 10-gr. doses of sodium sulphite, and the same diet.

On the seventh day the inflammation had extended above the groin by distinct, advancing, isolated patches of redness, some large spots of redness appearing on the lower part of the abdomen and over the buttocks, a large bed-sore having also rapidly formed over the sacrum without the knowledge of the patient or even the nurse, and which was accidentally discovered by turning her over.

The limb was now of a darker, duskier hue, not so shining or red, but enormously swollen, with a feeling of burning and weight, and doughy, leaving deep impressions in parts on pressure, which would remain some time, with numerous small vesicles scattered over the limb, and the whole contour had the appearance of approaching gangrenous condition.

I then ordered an application to be made freely with a large, soft feather of carbolic acid 3*ii* to olive oil 3*iv*, the parts to be covered with lint, the dressing to be repeated three times daily, the other parts about the abdomen and anus to be protected and dusted as before, and the medicine and diet continued.

Relief began almost at once. The next day amendment was plainly evident. The swelling gradually subsided, the redness soon faded away, and by the tenth day the limb was reduced to almost the normal size, the cuticle peeling off in large flakes irregular in size and shape, some an inch or more in breadth, leaving a healthy condition beneath; and the bed-sore was in a healthy condition and healing well.

The pulse ranged during the treatment from 98 to 110, and the temperature from 101.5° to 103.5° . Much thirst was manifested throughout, with some febrile exacerbation during the evening, showing considerable constitutional disturbance, though rather of an adynamic type. The patient was very indifferent as to what was done for or given her until towards the last, when she exhibited great desire to recover.

I ceased to visit her regularly after the twelfth day, after which date she convalesced rapidly.

The points of interest in this case are—1, the age of the patient; 2, the persistent spread, extent, and malignancy of the inflammation; 3, the bed-sore forming in so short a time; 4, recovery apparently through the agency of carbolic acid. Rarely, I think, are conditions such as these presented in a single case of this description; and it is for this reason that I offer it for record.

1211 F St., N. W.

CASE OF STIFF KNEE CURED BY FORCIBLE FLEXION.

BY GEORGE HAY, M.D.

ABOUT the middle of December, 1880, S. C., a man aged 38 years, called at my laboratory. At that time he was employed in one of the floating coal-offices on the Alleghany River as a species of shipping-clerk and to make himself generally useful. He stated that about the last week of November, or about three weeks previously, he and another man were using a lever to pinch what is called the "apron" or gangway away from the float, which had by some means got "fouled." The other man suddenly released his hold upon the lever, and, the whole weight of the "apron" being upon the other end, S. C. was thrown upwards to a height of fifteen feet, from which height he fell upon his left knee. According to the man's own story, there had been considerable effusion of fluid into the synovial sac, but when I saw him (three weeks after the accident) the fluid had been entirely absorbed. The patella appeared unusually large, but, on examining for comparison the uninjured knee, I found that such was its normal condition. The patella was freely movable over the joint. On examining the joint itself, I found that the internal condyle of the femur seemed larger than usual, but could not make out any intercondyloid fracture. The leg was completely extended, and the patient could not flex it at all. Fixing the thigh firmly by placing the patient face downwards and sitting astride his thighs as if on horseback, I found that by using considerable force the extremity of the limb at the great toe could be made to move through an arc of about three inches, the centre of the circle being an ideal point in the articulation of the knee. This, of course, implied but little motion in the knee-joint, but at the same time demonstrated the absence of ossic union of the bones, and led me to conclude that the ankylosis was only fibrous.

At this time I was serving on the staff of

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the Pittsburg Free Dispensary, and, as the patient was very poor, I advised him to come thither the following day, and stated that I would try to secure him a movable joint. Next day the man was laid face downwards upon the table at the Dispensary; I sat astride his thighs, and, using my utmost strength, both hands at the ankle, I forcibly flexed the leg upon the thigh and broke up the adhesions, which snapped audibly. I advised the man to get upon his knees every morning and evening, and prescribed a cooling lotion. In about a week I visited him at his home and found the joint stiff again, but not so much so as formerly. Again I broke up the adhesions forcibly, and prescribed an embrocation of oil, chloroform, ammonia, and camphor, regard being at the same time paid to his general health. I told him to get a crutch; he said he was too poor to buy one. I called upon his employers and asked them to furnish the man with a crutch, as he had been hurt in their service; they never did so, but, with the characteristic meanness of the average employer, they soon after discharged the man from their employ. Improvement, however, was rapid after the second forcible flexion, and now, nearly four months after the injury, the joint is quite as movable as that of the other knee. There is even yet slight thickening of the internal condyle of the femur, but it is diminishing; pain has disappeared, and the man can walk as well as ever he did. So far as I am aware, the books do not recommend such treatment as above described, and there are, no doubt, many cases in which it would not be advisable; but these would require to be carefully discriminated from those in which it would be suitable.

ANALYTICAL LABORATORY, 45 SOUTH DIAMOND STREET,
ALLEGHANY CITY, PA.

CHRONIC COPPER-POISONING.

BY JOHN GILLESPIE, JR., M.D.

THE following case is of some interest from the fact that the symptoms ensued upon employment in one of the arts, and because it presents some features which differ from those usually said to occur in a case of this nature. Further, it shows, negatively, the value of so simple a precaution as wearing a sponge before the mouth.

On account of the rapidity with which the symptoms supervened, it partakes of the acute character, although it is probable that the sore throat was caused by the particles of the powder acting mechanically.

N. C., æt. 35, was admitted to the wards of the Pennsylvania Hospital under Dr. James

H. Hutchinson, January 24, 1881. Three weeks previous to this the patient had begun working in a lithographing establishment, her work being to gild the lithographs. The powder used (bronze-powder) is largely composed of metallic copper.

The other work-people wore sponges over their mouths, but, through ignorance, the patient neglected to do so. After a few days her throat became sore, and she was troubled with a severe cough, but suffered no other inconvenience until three days before her admission to the hospital, when she was attacked with very severe pain in the abdomen, and vomiting, but no diarrhoea, the bowels being constipated. After the first day there was no vomiting.

Upon admission, the patient was anaemic, and there was a bronze discoloration of the face and hands. The hair was dry, the abdomen was greatly distended, and there was severe pain referred to the region of the umbilicus. The bowels were constipated. Neither the teeth nor gums presented any appearance of the green line said to be present by Dr. Clapton,* but, on the contrary, there was a faint purple discoloration of the gums, as is said to occur by Sir D. Corrigan.[†] The sleeves of the underclothing near the axillæ and at the elbows were stained green. There were headache and slight dizziness, with muscae volitantes.

During the entire period of the illness there was no fever. The urine was examined for copper, but none was detected. The faeces when first voided were of a greenish hue, but, on exposure to the air, became dark red. Copper was detected in the faeces by the following process. A mixture of equal parts of fecal matter and nitric acid was evaporated and strongly heated, more nitric acid added, and the evaporation repeated several times. The residue was then exhausted with distilled water and filtered, and the filtrate tested by the usual methods.

The treatment consisted of the exhibition of magnesium sulphate half an ounce twice daily, and seven drops of the deodorized tincture of opium every four hours to relieve the pain. Abundance of milk was given as the principal food for several days.

The patient was discharged cured February 14.

1332 SOUTH BROAD STREET, PHILADELPHIA.

SUDOR ANGLICANUS.—An epidemic of the curious malady known as sudor Anglicanus (*sueette miliaire*) has been reported as occurring in l'Île d'Oleron, France. One hundred and forty deaths occurred among twenty thousand inhabitants.

* Clinical Society Reports, vol. iii. p. 7.
† Dublin Hospital Gazette, September, 1855.

PSORIASIS IN A CHILD UNDER FOUR YEARS OF AGE.

BY H. W. STELWAGON, M.D.,

Physician to the Philadelphia Dispensary for Skin Diseases.

AS is well known, the first attacks of psoriasis occur most frequently at or approaching the time of maturity. Down to the age of ten it is not uncommon, but below this period it becomes very infrequent. Its occurrence in a child of five or six years is extremely rare, and in children under four years but few cases have been reported.

The following case came under my care during the early part of last year, and, as the subject was a very young child, it is worth recording:

The child, a male, was in its fourth year (lacking three months of being four years old), was well nourished, robust, and of healthy parentage. So far as could be ascertained, there existed no hereditary tendency to psoriasis, although one of the parents had been the subject of an occasional attack of eczema during early life.

On the trunk, arms, and legs were numerous scaly papules about the size of a split pea. On the back were several patches of the diameter of a ten-cent piece. On the extensor surfaces of the elbows and knees the patches were confluent and the disease well marked. The eruption was but slightly inflammatory. The scales were abundant, and of the peculiar pearly color so characteristic of psoriasis. The eruption had first appeared on the extensor surface of the elbows about nine months prior to my seeing the case, the child being then just three years old. Subsequently the knees were likewise attacked, where, as on the elbows, the patches at a later stage became more or less confluent. Afterwards other regions of the body were affected. The larger patches seemed more inflammatory. With the exception of the patches on the elbows and knees and the few on the back, the eruption was typical of the variety known as psoriasis guttata. Mere removal of the scales from some of the larger patches would cause slight bleeding at points; on others, however, this was not so easily produced. Itching had been troublesome at first, but had apparently ceased to be of much annoyance. The case had already been once under treatment at one of the dispensaries, but without much benefit,—doubtless due to the negligence of the mother.

The child was ordered small doses of Fowler's solution three times daily. The case was under observation, at intervals, for three months, and then disappeared from notice. During this time treatment was but spasmodically carried out, and, necessarily, with but little, if any, improvement.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL COLLEGE CLINIC,
LOUISVILLE.

SERVICE OF PROF. DUDLEY S. REYNOLDS, M.D.

Reported by A. H. KELCH, M.D.

CASE I.—Theodore Merkel, æt. 49, has suffered for the last three years from a disease of the throat and ears. He has been greatly annoyed by roaring and buzzing sounds, and occasional earache, sometimes amounting to acute pain. You may remember that when he was here first I found him suffering with what is generally called an acute catarrh, but what is in fact a subacute rhinitis. You may remember also that I announced to you, after examining his ears, that the drum membranes were collapsed. This condition was brought about by narrowing of the faucial orifices of the Eustachian tubes: the external atmospheric pressure upon the tympanic membrane being greatly in excess of the pressure within the drum cavity, the membranes of course, yielding to the superior external pressure, became gradually depressed. This condition of itself was sufficient to account for the earache, and, in fact, all the pain with which he is often tormented. Narrowing of the Eustachian tubes is always present in inflammation of the lining membrane of the naso-pharyngeal spaces. Now, catarrhs become chronic in debilitated subjects only. Mr. Merkel is a tailor by trade; he sits upon a bench in a close room, breathing a vitiated atmosphere, and it is no wonder he suffered from catarrh. His sedentary habits alone are sufficient reason for the persistence of local inflammations in the nasal and naso-pharyngeal and, for that matter, the bronchial mucous membranes. Mr. Merkel was during the first year or two afflicted greatly with cough; his voice gradually failed, until he was finally unable to engage in anything like satisfactory conversation. You remember when he came here it required great effort upon his part to vocalize, and close attention upon your part to understand what he said. He spoke with so much difficulty that the interval between words amounted to several seconds, in some cases quite a quarter of a minute; his articulation was bad. Examination revealed what appeared at the time to be paralysis of the left vocal cord. His trachea contained no morbid secretion. The lining of the nose, how-

ever, and naso-pharyngeal space was the seat of considerable inflammatory deposit. He had lost a portion of both inferior turbinate bones. Now, in the presence of all these morbid conditions, it is reasonable to infer that Mr. Merkel's disease began with constitutional debility, with these varied favorable conditions for the development of a parenchymatous rhinitis kindled from an acute catarrh due to purely atmospheric causes. Mr. Merkel's profession would forbid his engaging in anything like regular conversation. It necessitates that the head shall be inclined forward: the chin making pressure upon the larynx, renders conversation unpleasant. Therefore, from long habit, he has talked but little, until, finally, with the disease augmenting occasionally in severity, his ears becoming affected, his disposition to engage in conversation has grown gradually less and less. Not hearing acutely, he naturally felt inclined to avoid conversation, lest other persons should become aware of what was to him beginning to be a serious affliction. When he first came here I introduced the Eustachian catheter, and, with the aid of Politzer's air-bag, inflated the drum cavities of both sides. Since that time the process has been repeated at intervals of a few days, and he is now able to hear almost perfectly. You observe to-day he gives prompt answers to my questions; he speaks readily, and with as much clearness as most persons. The mere inflation of the tympanic cavities with air is not to be credited with all the improvement manifest in Mr. Merkel's hearing. The swollen, indurated condition of the naso-pharyngeal membrane has been greatly reduced by an occasional injection with the post-nasal syringe with a saturated solution of the muriate of ammonia. In addition to this, Mr. Merkel has been snuffing finely powdered white sugar, which acts as a gentle stimulant, and which has proven in his case of great service in bringing about resolution in the inflamed membrane. To stimulate the relaxed vocal cords he was directed to make use of benzoic acid lozenges made after the formula of the London Throat Hospital Pharmacopœia. The lozenges were taken one every four hours, and he has had an occasional dose of quinine. He has been directed to take salt-water baths at night, and to take an abundance of animal diet. To all these agencies com-

bined I attribute the improvement you now observe in his condition. To-day he hears well, his voice is good, his articulation wellnigh perfect; and, there being no longer any evidence of local disease in the nasal, pharyngeal, or laryngeal mucous membranes, the vocal cords appearing upon examination to be perfectly normal, Mr. Merkel is discharged, with the injunction to return to this clinic in the event he should again suffer the slightest symptoms of a return of his disease, either in the ears or the vocal organs. This is a case showing the necessity for minute and careful instrumental examination in order to make the proper diagnosis, and of course you understand that in the absence of a correct diagnosis the treatment must needs be irrational. I beg you never to believe for one instant that tinnitus aurium, atony of the vocal cords, and other similar phenomena are indicative of central lesions of the nervous system, until after you have made careful local examination of the parts affected. Now, it sometimes happens that in cases of syphilis all these phenomena occur, along with what appears to be a subacute inflammation of the naso-pharyngeal membrane; but in that case there will be more or less of local deposit, which distinguishes syphilis from almost all other forms of disease. Again, the local treatment will offer no substantial relief in syphilitic cases. You will, therefore, be able within a few days to determine the correctness of your diagnosis by the success of the treatment.

Case II.—Mrs. Y.—, in April, 1879, came to me with plastic irido-cyclitis, floating masses of lymph in the vitreous chamber, a total blindness, with the slight exception that she was able to perceive light. The instillation of a few drops of a four-grain solution of atropine revealed the presence of posterior synechia. She had been suffering with great pain, was much emaciated, and quite nervous. She had suffered with violent temporal headache every day at particular hours, the pain lasting just so many hours, and gradually subsiding, leaving the patient much exhausted, when profuse perspiration would ensue and she was inclined to sleep. She had suffered from constipation of the bowels and greatly diminished appetite for three months before I saw her. There was upon the surface of the iris a number of yellowish tubercular elevations. These nodules were formed by the local deposition of

plastic material. Now, I wish to say that these plastic nodules upon the surface of the iris or projecting from the pupillary margin I believe to be characteristic of syphilis. Whilst these are not present in all forms of syphilitic iritis, there can be little doubt of the syphilitic character of those forms in which the plastic nodules are present.

Mrs. Y.— had been unhappily married, and for a year had not lived with her husband. I asked her no questions, but, taking the peculiar manifestations of the disease in the iris as sufficient evidence of the syphilitic character of the disease, I at once prescribed iodide of potassium in ten-grain doses, ordered a saline aperient, and directed her to have five grains of the sulphate of quinine in solution three times a day before eating, and in addition to this she was ordered to use a four-grain solution of atropia every four hours. She was ordered a pair of London smoked coquille glasses to protect her sound eye from the light, and some general directions as to diet, etc., were given. Improvement began within the first few days, and she rapidly recovered from all signs of local disease, except impaired vision in the affected eye. She was, however, able, after a few weeks, to count fingers across the room, and finally to read ²⁰ LXX. I lost sight of her until a few months ago she came to say her vision was gradually becoming dim in this right eye. Careful examination disclosed the presence of minute opaque spots in the capsule of the lens, whilst the lenticular body itself showed opaque striae. I saw her two weeks afterwards: the opaque spots in the lenticular capsule were greatly augmented in number and enlarged in size; the opaque striae before visible in the lens had now given place to a distinctly marked and diffuse opacity. The eye was sensitive to light, and there was excessive lachrymation. The patient's general health was impaired. She was having quotidian headaches, and suffered from diminished appetite and from constipated bowels; the menstrual function had been disturbed; she appeared anaemic; her skin was rough, and discolored in places, presenting a slate-colored appearance. What appeared to be a proper course of constitutional treatment was at once begun, and an occasional drop of a four-grain solution of atropine was instilled into the eye. The general health improved, the photophobia and lachryma-

tion ceased, and she is here to-day to request the extraction of the cataractous lens, not with the view of restoring sight, because I have warned her of the improbability of any such result, but she wishes the lens extracted from this eye for cosmetic effect. She has consented to permit the operation without chloroform. Placing this speculum between the lids, I now proceed to make what is known as the peripheral corneal section. Introducing my knife in the horizontal line on the temporal side, I pass it forward until the point reaches the pupillary opening, when, by a slight depression of the point of the instrument, I engage the capsule of the lens, which I find very tough and resisting. The knife, however, now passes on, and I begin the counter-puncture in the horizontal line at the nasal side of the cornea, and by passing the knife rapidly on, you see, I complete the section. The iris floating in between the lips of the wound, I now seize it with the forceps and cut off about one-sixth of it with the scissors. The lens now presents itself, and by light pressure with the convex surface of Daniel's spoon upon the inferior margin of the cornea, the edge of the lenticular body engages the corneal wound above, and, you see, I readily tilt it out, and deliver it from the eye. I now, by gentle and careful manipulation with the spoon, cause the cortical portion of the lens-substance to flow into the central portions, and by gentle pressure cause it to escape from the wound, thus leaving a clear pupillary space, except for the plastic deposit in the substance of the capsule. You see now the operation has been done, and without great pain, as the patient has made no complaint whatever. I shall now proceed to close this eye with some dry cotton wool and strips of adhesive plaster, the dressing to remain for a week, unless some pain, or other evidence of local irritation, should make it necessary to remove it. Now, this operation was not done to restore sight to the blind eye, but to remove what to the patient was a source of great annoyance,—a white pupil. The operation for the extraction of the crystalline lens has been brought to great perfection. Whereas in former times it was considered a hazardous undertaking, it is now known to be one of the most harmless of all operations involving puncture of the walls of the globe. The operation I have

done is precisely such as I do in many instances where the extraction of an opaque lens is done to restore sight in an eye previously blind. The chief danger in extracting the lenses from the eyes of persons in good health is in the liability to rupture the hyaloid membrane and allow the vitreous humor to escape. The late Mr. J. Z. Lawrence, of London, called attention to the fact that about one-fifth of the vitreous humor may be lost without serious impairment to the sight. Whilst my experience verifies this statement, I am always careful to avoid the loss of any vitreous whatever, and for two years now I have been fortunate enough in all my extractions to lose no vitreous. I feel that this result is in great measure due to the manner in which I open the capsule. I sometimes make the peripheral corneal section, sometimes the old flap, and sometimes the section of Liebreich. In a few instances I have had, after puncturing the eye with the knife, to complete the section with the scissors. I nearly always perform iridectomy before attempting to extract the lens. I sometimes incise the capsule with the point of the knife whilst I am making the corneal section, and I sometimes depend upon peripheral laceration of the capsule after the iridectomy has been completed. I have concluded that it is safest and best to pass the knife through the cornea on to the area of the pupil, then impale the capsule of the lens, pass the knife, on making the counter-puncture in the cornea, and at the same time dividing the capsule. Having previously dilated the pupil with atropia, this manœuvre frequently enables me to extract the lens without the necessity of removing any portion of the iris whatever. I have some magnificent results from this practice. If the iris does not flow quite out of the wound, there is no necessity whatever in the great majority of instances for the performance of iridectomy, and even in some cases where the iris flows out, if the lens escapes readily from its capsule, the cortical substance may be removed, the iris returned with a small spatula, the pupil contracting readily, and the corneal wound unites by primary adhesion, giving thus a perfect result in all respects. It is frequently necessary after an operation of this kind, when the eye has fully recovered, to perform a secondary operation, lacerating with needles the posterior capsule of the lens. It often happens that in

an eye which recovers promptly from such an extraction as has just been described, and which has apparently a perfectly clear pupil, the slightly opaque posterior capsular membrane offers sufficient obstruction to the entrance of light to interfere greatly with the acuity of vision. In such cases laceration of the posterior capsule is effected by the introduction of two needles through the corneal substance from opposite sides, impaling the opaque capsule upon the point of one, whilst the other needle is passed in close by the point of entrance of the first into the capsule. Using the walls of the cornea as a fulcrum, one of the needles is made to sweep around the other in such a way as to insure a wide laceration of the opaque membrane. As soon as it has been determined that the laceration is sufficiently large, the needles are withdrawn, the eye closed for a few minutes, and a drop of atropia instilled. In twenty-four hours it usually happens that the effects of this operation have disappeared. When the eye is no longer irritated, the adaptation of glasses usually gives a satisfactory result. So you see now that extraction of cataract, though a much more complicated operation than the old method of couching, yields far more satisfactory results. In fact, I consider extraction of cataract about as uniformly successful as the amputation of fingers, comparing the proportion of eyes lost from the one with the number of deaths by tetanus from the other.

TRANSLATIONS.

PILOCARPIN IN DIPHTHERIA.—Dr. Neumeister has just published (*Deutsche Med. Wochens.*, 1881, p. 95) the account of his carefully conducted experiments upon the employment of pilocarpin in diphtheritis. Twenty-eight patients were treated with pilocarpin in the Lazarus Hospital. Of these, five were adults, the rest children. The type of disease was severe. The patients were carefully watched, received nourishing diet and stimulants, and the adults took two to four milligrammes ($\frac{1}{10}$ — $\frac{1}{16}$ grain) pilocarpin every hour or oftener, day and night, while the children took $\frac{1}{30}$ — $\frac{1}{25}$ grain in the same way. The adults became salivated more frequently and more easily than the children, in one of whom, a strong boy, the medicine given day and night for ten days failed to excite

the least symptoms of salivation. This failure in some cases and excessive salivation in others is attributable to personal idiosyncrasy. Where there were concomitant symptoms of scarlatina the absence of salivation was particularly noticeable.

In considering the influence of pilocarpin upon the course of the disease, Dr. Neumeister separates the adult cases from those of children. With regard to the latter, in no case could any favorable influence of pilocarpin on the course of the affection be observed. Even where salivation was produced, the disease ran its course apparently unchanged. There was no fall of temperature and no loosening of the false membrane, the diphtheritic process spreading continuously in the mucous membrane. In four of the twenty-three children tracheotomy was performed. Thirteen died. In eight cases the bad effects of pilocarpin were observed. In one case, after long use of the pilocarpin, albuminuria appeared. In six cases sudden failure and irregularity in the pulse supervened. In adults the influence of pilocarpin appeared, on the whole, favorable. Four recovered in a relatively short time: of these, three were salivated, with a rapid fall of temperature and marked general improvement in feeling.

Neumeister, therefore, upon the whole condemns the employment of pilocarpin in the diphtheritis of children: 1, because it is insufficient to excite salivation; 2, because, even when salivation has been induced, the false membrane is not loosened. "Why, indeed, should this occur?" asks Neumeister. "How should the excitation of the salivary secretion affect a process which is often so deep as to involve necrosis of the mucous membrane?" 3. Pilocarpin is to be condemned because in children it is a dangerous remedy, which, even in small doses, may give rise to weakness of the heart and threatening collapse.

PATHOGENESIS OF BLENNORRHAGIC EPIDIDYMITIS.—At a recent meeting of the Société de Chirurgie (*La France Med.*, 1881, p. 245) Dr. Despres said that Ricord had studied this affection most thoroughly, his views having appeared in a communication to the Académie de Médecine, and in his annotations to Hunter's work. Despres himself thinks that the theory of propagation of the inflammation is not satisfactory. Suppuration of the surface does not descend to the epididymis. Epididymitis

itself does not present the appearance of a suppurative inflammation. In autopsies dilatation of the seminiferous ducts and retained spermatic fluid is observed. The patients have had orchitis at a period anterior to that at which the inflammation could have been propagated. Epididymitis shows itself not later than at the end of a fortnight. The spermatic fluid is secreted constantly, even during the severest and most protracted diseases. Blennorrhagic epididymitis occurs in patients in the vigor of life. The reason for this is that when blennorrhagia begins, coitus ceases; the testicles become painful; towards the sixteenth to the twentieth day the patient has an orchitis, especially if he goes about or is employed in heavy labor. Epididymitis, then, is in reality brought about by retention of spermatic fluid in the testicles when joined to this is some exterior cause of testicular engorgement. Why are not both testicles affected? Because, as the cause itself of epididymitis is only occasionally operative, so this cause usually manifests itself unilaterally. In some patients epididymitis develops after coitus, or after a nocturnal pollution; this is because after this the testicle functionates the more only to fill the seminal vesicles anew. Epididymitis may occur after blennorrhagia, catheterization, arrest of a stone near the ejaculatory ducts, fistula in ano, ablation of hemorrhoids, cancer of the rectum, because in each case compression is made on the ejaculatory canal. It is difficult to explain the affection by propagation of inflammation, but easy to explain it by compression of the ducts.

THERAPEUTICS OF HEADACHE.—Massini (*Deutsche Med. Wochens.*, 1881, p. 101; from *Correspondenz-Blattf. Schweiz. Arzt.*) recommends bromide of potassium, particularly in uræmic headache. Ergotin is useful in paralytic conditions, nitrite of amyl in spasm. Then follow quinine, caffeine; but all these medicines fail sooner or later, and then recourse is had to narcotics. There is always fear, however, of morphiomania. Recently, croton chloral, in doses of five to eight grains every three hours until thirty grains have been taken, has been recommended in uræmic headache. Monobromide of camphor in gelatin capsules, in doses of three-fourths of a grain to six grains (in gastralgic forms), is also of use. Aconitia (the English preparation) in doses of $\frac{1}{60}$ to $\frac{1}{30}$ grain is

highly recommended by Massini, who also suggests that the effect of these remedies may be increased by the external employment of ointments of aconitia and opium. Tincture of gelseminum in thirty- to sixty-drop doses in neuralgia of the fifth pair is, in Massini's opinion, an excellent remedy. [He fails to add the caution that this remedy sometimes produces very unexpected toxic results, and is altogether very much like a boomerang in the hands of the inexperienced. The weapon may be launched against the disease, but may easily miss that and hit the patient.—ED.]

FINAL RESULT IN THE RADICAL OPERATION FOR HERNIA.—H. Braun (*Cbl. f. Chir.*, 1881, p. 122; from *Berlin. Klin. Wochens.*) gives nineteen cases of hernia treated by the radical operation under antiseptic precautions. Eleven cases were unilateral, three bilateral inguinal hernia; two cases omental hernia through the linea alba. The operation was undertaken six times after herniotomy for strangulation, nine times because the hernia could not be kept in position by a truss, twice in irreducible hernia, and twice because of intestinal fistulæ in the hernial sac. In one of the latter cases, coccal hernia, there was no hernial sac. Two of the cases operated upon died: one, an adult, died of pyæmia. The other was a six-months' child, who died of convulsions a few days after the operation. The final result in the other operations varied according to the age of the patient. While in the case of the children a permanent cure resulted, in the adults, on the other hand (excepting the two cases of omental hernia of the linea alba), a radical cure was not attained in any case. A relapse occurred invariably after the lapse of a year, or at most two. Braun says the operation is only justifiable—1, after herniotomy; 2, in very large or irreducible hernia; 3, when fecal fistula into the hernial sac exists. In small, free hernia the operation is contra-indicated.

THE EMPLOYMENT OF HYPODERMIC INJECTIONS OF EXTRACT OF ERGOT IN VARICOSE ULCERS AND ECZEMA OF THE LEG.—The difficulty of curing varicose ulcers and eczema of the leg in connection with the varicose condition is well known, as is also the frequency of relapse in these cases, which it seems at times almost impossible to guard against. After long patience on the part of physician and patient, after rest and bandages and dressings, at last a

cure is attained, but the blue and swollen veins and the unhealthy-looking integument promise poorly for the future. Sooner or later a relapse is almost sure to occur.

With the view of obviating this, Dr. Meyerhoff (*Deutsche Med. Wochens.*, 1881, p. 96) has employed the following procedure. The ulcer being dressed with a two per cent. carbolic acid lotion, subcutaneous injections of extract of ergot were made in the deep plexus of veins around the ulcer, one every second or third day, about a grain and a half being injected each time. After the injection the limb was enveloped in a flannel bandage, and the patient reposed during that day. Nine cases were thus operated upon, the average number of injections required to heal the ulcer in each case numbering about eight, with two or three given subsequently to make all sure. The narrowing of the vessels was very decided. Relapses did not take place. The operation causes pain, lasting six or eight hours, but no abscess.

MALIGNANT PUSTULE SUCCESSFULLY TREATED BY INJECTIONS OF CARBOLIC ACID.—At a recent meeting of the Académie de Médecine (*Le Progrès Médical*, 1881, p. 143) Dr. Trélat told of a woman of 25, who had been stung by a fly, and who presented very grave symptoms when admitted to the hospital. Extreme anxiety, sighing respiration, intense fever, and weakness were present. Over the upper third of the sterno-mastoid was a characteristic elevation with a black centre, surrounded by a peripheral zone, on which were seated vesicles. Beyond this the skin was red and tumefied, the color spreading over the neck and even to the bosom. The diagnosis of malignant pustule being beyond question, Dr. Trélat made a deep incision through the slough and applied Vienna paste, after which he made four injections of twenty-per-cent. carbolic acid in the vesicular zone. The next day there was some improvement; the number of injections was increased to ten, and the improvement continued; the injections were then reduced by two daily, carbolic acid being given internally. Eight days later all the alarming symptoms had disappeared and the patient was practically well.

GLOBOSE VEGETATIONS OF THE HEART.—Dr. Maurice Letulle (*Le Progrès Médical*, 1881, p. 145) gives the case of a woman of 65, who, in addition to evi-

dences of embarrassed circulation, suffered extreme pain on the least pressure in the intercostal spaces of the cardiac region. The diagnosis made was dilatation of the heart, probably secondary to a mitral lesion. The patient dying shortly after, the autopsy showed the heart much hypertrophied, dilated, and filled with clots. The left ventricle contained a score of globulated vegetations within its cavity, and for the most part inserted near the apex. These grayish masses, of which the free surface in the ventricular cavity was smooth and regular, were roundish or ovoid in shape, and adhered closely to the endocardium; the largest was the size of a nut. Similar growths, in smaller numbers, were found in the right auricle. Incisions into the myocardium showed marked alterations, with incipient aneurisms of the heart. According to Letulle, these vegetations represented a spontaneous arterial thrombosis developing itself in the neighborhood of vascular localities invaded by arteritis.

TRIPOLI INSTEAD OF PLASTER OF PARIS IN BANDAGES.—Dr. Von Langenbeck (*Cbl. f. Chir.*, 1881, No. 6; from *Berliner Klin. Wochens.*) recommends tripoli instead of plaster of Paris for the immobile bandage. Tripoli is a gray, finely-powdered mass, the method of manufacture of which is kept secret, but which is known to include lime and silica as its chief constituents. Tripoli bandages are applied in the same way as plaster-of-Paris bandages. Its advantages over the latter are the following: it absorbs moisture from the atmosphere with greater facility; it is lighter; it hardens faster, and when once set takes up no more water, so that, if penetration of water under the bandage is prevented by rubber cloth, the patient can be bathed without difficulty. In addition, tripoli is cheaper than plaster of Paris.

HEREDITARY ICHTHYOSIS CORNEA OF THE PALM AND SOLE.—A. Thost (*Inaug. Diss.*, Heidelberg, 1880; *Cbl. f. Chir.*, No. 10, 1881) tells of a family in which ichthyosis was handed down for four generations. According to the ascertained genealogy, the ancestor who was first known to have suffered from this affection had five male children who inherited it, while one boy and one girl were spared. One of these diseased children himself begat five children, of whom three males showed the disease, while one boy and one

girl remained free. Another brother of the second generation begat five male and three female children ; of these, four boys and two girls became affected. One of these latter (of the third generation) bore four children, of which three girls inherited the disease, while the fourth, a boy, escaped. Of these seventeen cases, eight were seen by Thost and careful notes were taken. It appeared that the affection always showed itself within a few weeks after birth in the form of a roughness of the palmar and plantar surfaces. With the growth of the child the condition constantly increased in severity, the epidermis shedding in large shreds until the disease reached its maximum by the fourteenth year. There was a marked disposition to excessive sweating, particularly in the diseased localities ; the sensibility of the skin remained normal. Microscopic examination showed, in addition to the hypertrophied papillæ, great development of the sweat-glands, with marked thickening of the ducts. All kinds of treatment failed to give more than partial relief.

SUGAR OF MILK AS A MEDICINE.—Dr. Moritz Traube (*Deutsche Med. Wochens.*, 1881, p. 113), believing that the laxative effect of whey is not, as is generally supposed, due to the salts contained, but to be attributed to the milk-sugar, was led to make certain experiments to ascertain the facts in the case. Having suffered for several years from constipation, he experimented upon himself as follows. About half an ounce of very finely powdered sugar of milk was dissolved in half a pint of yet warm boiled skim-milk, and the faintly-sweet solution drunk in the morning upon an empty stomach. An hour and a half later breakfast was taken, and in two to three hours after drinking the mixture a full, loose, brown stool was passed without discomfort. Traube has employed this mild laxative almost daily during the past fifteen months, using milk diluted with an equal bulk of water. The effect has always been satisfactory, and he has not been obliged to increase the dose of sugar of milk. Traube has employed milk-sugar in other persons, and usually, but not invariably, with success. Where it failed, he is inclined to attribute its want of success to the small dose employed or to the peculiar constitution of the patient. Regarding the amount of milk-sugar which can be taken without injury,

Traube has used as much as six drachms in half a pint of water without ill effect.

A LUMP OF SHELLAC AS A CAUSE OF ILEUS.—Friedländer (*Cbl. f. Chir.*, No. 10, 1881; from *Berlin. Klin. Wochens.*) found, at the post-mortem examination of a middle-aged cabinet-maker who had died with symptoms of ileus, a hard concretion, which was situated in the small intestine, thirty centimetres above the ileo-caecal valve, and which completely filled the lumen of the intestinal tube. Numerous smaller masses, of a similar character, were found higher up in the intestine, which altogether weighed nine hundred and sixty grammes. These masses consisted of shellac, and an examination into the late patient's history showed that he had been what is called a "polish-soaker," —that is to say, he had been accustomed to drinking the polishing-fluid made use of by cabinet-makers, and which consists of a solution of shellac in alcohol. The alcohol had been absorbed in the stomach, while the shellac had been thrown down and had gradually concreted.

It is said that among the cabinet-makers' apprentices of Berlin there are many "polish-soakers," and Friedländer suggests that possibly the mysterious concretions found by Langenbuch, and which were reported at the recent congress of German surgeons, might have had a similar origin.

A NEW SYMPTOM OF SCROFULA.—Dr. Constantin Paul has directed attention to what he considers a valuable sign of scrofula (*Bull. Gén. de Théráp.*, vol. i., 1881, p. 137). During the past two years he has observed no fewer than twenty-five cases of lupus originating in the lobe of the ear as a result of piercing for ear-rings. The affection shows itself in a multiple division of the lobe, the ear-ring working its way out and a new puncture being made, followed by the same process.

ABSCESS OF THE BRAIN IN A FœTUS.—Dr. R. H. Bakewell (*Lancet*, vol. i., 1881, p. 142), in the case of a fœtus born after having been dead probably about ten days, found the skull collapsed, with a third of its usual contents ; the bones were all loose, and several completely detached from their articulations. They were denuded of pericranium. The skull-cavity was filled with blood and pus. But little brain-tissue could be detected, and that appeared to consist entirely of the convolutions. The placenta was small, and had numerous hard fibroid masses in it.

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, APRIL 23, 1881.

EDITORIAL.

DR. ISAAC RAY.

ISAAC RAY, M.D., LL.D., one of the most distinguished and best known of American physicians and writers, died at his residence, on Baring Street, in the city of Philadelphia, on the 31st of March, 1881, in the seventy-fifth year of his age.

Dr. Ray was a native of Massachusetts, and was born in the town of Beverly on the 16th of January, 1807. He commenced his literary education at Phillips Academy, in Andover, and afterwards entered Bowdoin College, where he prosecuted his studies till 1824, when he was compelled to leave on account of ill health. While at college, during the vacations he taught school, and was noted for his ability in an occupation in which so many of the great men of this country have been engaged in the beginning of their careers. Soon after leaving college, when his health had sufficiently improved, he commenced the study of medicine, passing a portion of the time in the office of Dr. Shattuck, a distinguished physician of Boston, and graduated at the medical department of Harvard University in 1827.

Dr. Ray began the practice of his profession in the city of Portland, Maine, in 1827, and he here met and married, in 1831, Miss Abigail May Frothingham, a most estimable lady, who still survives him, and with whom he lived in mutual confidence and happiness to within exactly two months of a period of fifty years.

Two years after commencing practice in Portland, inducements were offered to him to remove to Eastport, in the same State, in which place he soon afterwards fixed his residence. It was in Eastport that

Dr. Ray's attention was first directed to the subject of insanity, and while there he wrote and published the first edition of his work on "The Jurisprudence of Insanity," of which six editions are now exhausted. This work is known everywhere where the English language is spoken, and is universally regarded as a high authority, no less by the members of the bar than by alienists and all the medical profession.

In 1841 Dr. Ray was appointed Medical Superintendent of the Maine Hospital for the Insane at Augusta, which position he held till he was invited by the authorities of the Butler Hospital at Providence, Rhode Island, to become superintendent of that institution—which was just then being organized—and to supervise its erection. While a resident of Maine, and especially while in connection with its State institution for the insane, he had abundant opportunity to observe the unfortunate results which have so often arisen in various parts of our country from such institutions being under political management or controlled by bodies of men whose personal interests in their affairs led to the sacrifice of officers of the highest capacity and integrity simply because they could not be induced to become agents for carrying out any plans that were not for the best interests of the institutions and their patients. On all such points Dr. Ray's opinions were most emphatic, and no one has done more to secure the proper organization of American hospitals for the insane.

Dr. Ray was led to accept the position offered him at Providence especially from the fact that that hospital was to be the offspring of private munificence, and was to be controlled by men who were above all suspicion of political or selfish interest in reference to it. Beyond this, he was here offered an opportunity to introduce into the construction of the buildings and into the subsequent management of the

institution his well-matured views on all these subjects.

After a visit to a number of the prominent institutions for the insane in Great Britain and on the continent of Europe, Dr. Ray returned to the United States and personally superintended the completion of the Butler Hospital, which he opened for the reception of patients in 1847. He continued to fill the office of superintendent of that institution till January, 1867, when, to the great regret of the authorities of the hospital and of all in any way interested in its welfare, he felt impelled, by a conviction that his health required a change of climate and occupation, to resign the position which he had held so acceptably to all, and with such signal advantage to the afflicted, for a period of more than twenty-two years.

For the first time in his life, with the exception of his short European trip, he was now released from labor, and spent the greater part of a year in visiting his professional brethren, and in seeking a place for his future home, finally adopting the city of Philadelphia, in which he settled permanently in 1867.

This release from the cares and responsibilities that are inseparable from a conscientious performance of the duties of a superintendent of a hospital for the insane, with the change to a milder climate, was greatly enjoyed by Dr. Ray, and seemed to have a very beneficial influence on his health, so that, from being unable to go more than a few blocks from his house on foot, he now extended his walks to four or five miles daily. All these changes gave him opportunity for the literary labor in which he so much delighted, and for complying with the frequent calls that were made upon him for professional consultations and for his opinions as an expert in criminal cases and in regard to the mental capacity of individuals who were making testamentary disposition of their property.

Dr. Ray was one of "the original thirteen" who in 1844 established "The Association of Medical Superintendents of American Institutions for the Insane," and also took a deep interest in its success. He was rarely absent from its meetings, was a frequent contributor of valuable papers, and participated actively in nearly every discussion coming under its notice. He was its president from 1855 to 1859. At the meeting of this association in Providence, in 1879, he was the recipient of distinguished attentions from his old associates, friends, and neighbors, as well as from the Rhode Island Medical Society (of which he was at one time president), and from Brown University, which at this time conferred upon him the honorary degree of Doctor of Laws.

Dr. Ray was a Fellow of the College of Physicians of Philadelphia, frequently read valuable papers at its meetings, and always took an active interest in matters coming up for discussion.

He was a most industrious writer. Besides his well-known larger works, there were few matters of professional or public interest that did not to a greater or less extent, through the various journals or in the daily public press, receive the benefit of his clear views and wise suggestions.

The death of such a man as Dr. Isaac Ray—a wise counsellor in all cases of obscure mental disturbance—makes vacant a place in this community, in the medical profession, and in the specialty to which he particularly devoted himself, that cannot readily be filled. By those who knew him intimately, in addition to this, there must be felt the sundering of the social ties of friendship and tender regard, the loss of his genial presence, his words of wisdom, and his remarkable and variable conversational powers, which made him interesting alike to the gravest men and to the prattling children with whom he was always a favorite.

After impressive funeral services in the

chapel of the institution, where every mark of respect was paid to his memory, the remains of Dr. Ray were interred in the cemetery adjoining the grounds of the Butler Hospital, at Providence, which he loved so well, and in which he had spent so long a portion of his active and useful life.

CLINICAL INSTRUCTION.

MOST of our readers have, no doubt, read more or less of the discussion which has been carried on with sufficient acrimony between the *London Lancet*, Professor Gross, and the *New York Medical Record*, or, perhaps to speak more accurately, between Mr. A. E. Broster and Professor Gross in the two journals named, the editors aiding, abetting, stimulating, by comments, much as the sponge-holders stimulate combatants in a less honorable cause. The tone of the last editorial in the New York journal is notable. Our most honored colleague writes as though his life had been spent among the deserts of Africa, or in some high court of Europe where no western breeze ever wafts democratic news to aristocratic ears. According to the veracious chronicles of Atkinson, for five-and-forty years has he lived in and about New York City, save when travelling up and down the land in the service of his country; for many years editor of what, if we take it at its own valuation, is the "livest" journal in America. Sitting, therefore, in an editorial sanctum as a spider sits in the centre of a web which reaches everywhere, he confesses to a little curiosity in learning of the actual facts in the controversy! Does he not know them? Is No. 27 Great Jones Street, New York, such a distinct recess of the American continent that neither telegraph, mail-bag, nor messenger from other parts of the United States can reach it? Possibly! Or is our most honored friend a little afraid or a

little ashamed to tell the truth in regard to the average medical teaching of America? The truth, properly stated, might be written in very brief terms, but the mass would be as bitter as a pellet of strychnia, and represent much more of destructiveness to human life.

In most of our medical colleges there is no roll-call. No personal efforts are made to see how much instruction of any kind the student receives, and there is no necessary personal contact between him and any official teacher. A class, it may be, of six or seven hundred men—some fresh from the country, some nearly ripe for graduation—are lectured to by the professor at stated times: it is plainly impossible for the speaker to know more than a fraction of his hearers. Clinical teaching is upon the same basis as other teaching: the clinical lectures are given; the student can come or go, as he chooses. Theoretically it may be possible for a man to graduate without seeing a single case, just as theoretically it is possible for him to graduate with a very slight attendance on teaching of any kind. Practically the students attend the clinics as well as or even better than they do the didactic lectures.

The criticism of Mr. A. E. Broster is theoretically right, practically wrong. His prying finger does not touch the real sore in most American clinical teaching,—namely, that it is, for practical purposes, little or no better than didactic lectures. A huge class on the benches, a sick man in the amphitheatre, employed by a brilliant lecturer as a text for a discourse,—this is ordinary American clinical teaching; and it is not only possible for a man to graduate in an American college without having been taught practically the difference between a sibilant and a mucous râle, but a large proportion of the men who do graduate know nothing about any form of physical diagnosis, and those who have learned the art have done so from private sources and of their own free

will, not because they have had opportunities offered, and not because they have any fear of being expected by examiners to have any practical knowledge of the subject.

The New York colleges, the Jefferson Medical College, the Eastern and the Western schools in general, are at one in these respects, except only those schools which have reformed their programme of teaching,—namely, Harvard University, the University of Pennsylvania, the Michigan University, and a few of the smaller institutions. In these—all, we believe, certainly in the two we know most about—at the bedside clinical medicine is taught thoroughly to small classes, and attendance upon such instruction is enforced upon the student.

NO PREMIUM ON FOLLY.

NOT long ago an American physician lost his life from diphtheria contracted in the attempt to clear a tracheotomy-tube by sucking it. His act of folly was, in the opinion of some, hardly condoned by its punishment; by others it was lauded as an act of heroism. A recent number of a contemporary relates with satisfaction that the Albert Medal has been conferred upon a young surgeon of England—a Mr. Grier—who applied his mouth to the tube to restore respiration in a similar case. The editor of our contemporary makes this the occasion for some ironical remarks about the want of appreciation of such deeds in “the land of the free and the home of the brave.”

It is a pity, not that there should be this lack of appreciation, but that there should be any exception to it. It is time, indeed, that expressions of admiration for reckless and unthinking acts of folly should stop, and that men who have any influence in moulding public sentiment should strengthen the opinion that it is not praiseworthy, but on the contrary censurable,

for one to expose a valuable life in the hope of saving one of less value, and ten-fold reprehensible when the risk is so enormous and the benefits are so unlikely to be obtained or kept as in the cases we have just referred to. The man who does such things is not brave, he is rash; and, hard as it may sound, the American who lost his life and the Englishman who received the Albert Medal were both actuated by idiotic although courageous impulsiveness.

If the commander of the charge at Balaklava had survived only to be court-martialled and shot, we might have lost a very effective occasion of school-boy oratory, but we would also have been spared a very pernicious example of praising what should be universally condemned. The same principle should guide us in expressing opinions of men who try to clear tracheotomy-tubes with their mouths. If they die in consequence, natural etiology takes their punishment out of our hands; if they live, they should be pilloried as a warning to others.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, JANUARY 27, 1881.
THE PRESIDENT, Dr. S. W. GROSS, in the chair.

Acute caseous phthisis. Exhibited by Dr. J. H. MUSSER.

WHEN removed from the body, the lungs which are before you this evening presented the following appearances. Right lung: costal and pulmonary pleura adherent; entire lung consolidated. On section, upper lobe of a yellow color, very soft, cheesy, presenting numerous small cavities, from which poured a thick gray fluid. A strong stream of water playing on the lobe washed out the soft cheesy material and revealed the lung riddled with cavities not larger than a filbert, generally communicating. The middle lobe was completely consolidated, of a gray color, very slightly granular, and exuded a thin fluid. The lower lobe was grayish-yellow, soft, with three small cavities. Left lung: pleural adhesions at apex; one-fourth of the upper lobe presented the characteristic ap-

pearances of catarrhal pneumonia. The remaining organs were normal.

The specimens were removed from a young man 25 years of age; single; a painter; of good habits; without any hereditary predisposition to disease. He had always enjoyed good health, and had never been subject to cold. One month prior to admission to the hospital he caught "cold." Persistent cough was the only symptom for two weeks. Then he noticed feverishness and night-sweats. The cough, at first dry, about the same time became muco-purulent. Emaciation and loss of strength followed. His appetite remained very good, and there was no gastro-intestinal derangement. During this time and until admission to the hospital he was going about from place to place in the Eastern States in search of work. The past week the fever and sweats and the cough have continued, the emaciation has progressed, and the debility has become greater.

On admission, November 5, haggard and emaciated; dry hot skin throughout the day; exhaustive night-sweats; face pale; hectic flush; eyes blue; sclerotics pearly; hair brown; lips thin and pale; hands bluish; fingers not clubbed; special senses and cerebral faculties normal; teeth poor; tongue red, clean; appetite and digestion very good; no diarrhoea; liver and spleen normal; pulse 110; heart-sounds normal; respirations 28; almost constant cough, worse at night; abundant muco-purulent expectoration; great pain in right side and at right apex, with tenderness; unable to lie on that side. Physical signs of consolidation of right upper lobe, anteriorly and posteriorly, with mucous râles.

November 17.—The severe cough has continued; extreme pain; fever and profuse sweats; emaciation progressing; weak. The dulness, the bronchial breathing, and bronchophony of the right apex have been replaced by cracked-pot sound, amphoric breathing, and pectoriloquy. These signs are especially distinct between the clavicle and the third rib. Consolidation of the middle lobe is noted, and partially of the lower.

November 21.—The physical signs of a cavity noted last week continue, but are variable. At one time cracked-pot sound is absent and tympany present, cavernous breathing replacing the amphoric. With amphoric breathing there are a few large râles; when cavernous, innumerable moist râles are heard. The more distinct evidences of consolidation of the lower lobe were frequently pronounced, with dulness, bronchial breathing, and subcrepitant râles. No alteration of digestion; pain and cough only relieved by morphia; fever and sweats continued; breathing hurried.

November 21.—The distinct but variable pectoriloquy and other signs of a cavity continue. At the base complete consolidation and softening; large mucous râles heard all over

the chest. Impaired resonance and prolonged expiration, with a few crackling râles, noted three days ago at left apex; they continue.

On November 30 the following physical signs were noted. Thorax long and flat; considerable flattening above and below right clavicle; expansion impaired; vocal fremitus increased over lung anteriorly, diminished at base posteriorly. On light percussion, in first interspace at right edge of sternum, tympany becoming dull towards shoulder; on deep percussion, cracked-pot sound. In second, on light percussion, tympany especially on full inspiration; at end of expiration, dulness; on deep, cracked-pot sound. From the third rib to the liver, vesiculo-tympanitic percussion-note. On auscultation, cavernous breathing of high pitch, becoming amphoric towards the shoulder, with large bubbling râles in the first interspace. In second, cavernous breathing and bubbling râles; from third rib, cavernous breathing and mucous râles. Pectoriloquy absent to-day, though at times distinct in the three upper interspaces; vocal resonance absent. In line of axilla, dulness from above downwards. Posteriorly, dulness to middle of scapula, increased resonance below. Where dulness, vocal fremitus increased, absent where extra-resonant. Above spine of scapula, amphoric breathing and bubbling râles; from spine to middle of scapula, blowing, almost cavernous breathing, with moist crackling râles, in inspiration, and only the râles in expiration. Below middle of scapula numerous moist râles and a very faint blowing breathing. Left apex as previously noted.

Hectic very great; delirium at night; muco-purulent expectoration, slightly streaked with blood; daily epistaxis; tongue clean and red; bowels costive; appetite good.

December 6.—Cracked-pot sound from clavicle to fifth rib on right side, in first interspace on left; other signs the same; continual low delirium and stupor.

December 16.—No noteworthy change in physical signs. Died of exhaustion to-day.

Note first the pathological conditions of the lungs. Upper lobe, numerous cavities; middle lobe, consolidation; lower lobe, consolidation, caseation, a few cavities. Note that over the upper lobe anteriorly there was tympany or cracked-pot sound, cavernous or amphoric breathing, variable pectoriloquy; posteriorly, dulness and amphoric breathing; physical condition, innumerable small cavities. Over middle lobe, vesiculo-tympanitic note and cavernous breathing in front, dulness and blowing breathing behind; lobe consolidated. The lower lobe completely consolidated, with a few cavities yielding vesiculo-tympanitic percussion-note all over; cavernous breathing anteriorly, faintly blowing posteriorly. The intermittency of the pectoriloquy and the variability of the auscultatory and percussion phenomena are of interest.

There was no mistake in the above signs, as they were demonstrated to ward classes, and from time to time compared with the physical signs given by the enormous cavity in the lungs which I presented December 13. I neglected to note, also, that the cavernous or amphoric breathing was often heard clearer in inspiration.

Case of chronic peri- and intra-articular disease of knee-joint. Presented by C. B. NANCREDE, M.D.

Peter —, age 60 years, was admitted, September 13, 1880, to the male surgical ward of the Protestant Episcopal Hospital, suffering from a slight but painful swelling of the left knee-joint. He had been a hard drinker and an inmate of the House of Correction until his transfer to my wards. He could assign no cause for his trouble, but said the other knee had been similarly affected and the disease had been pronounced rheumatic.

The joint steadily increased in size, but did not assume the peculiar form of acute synovitis, the swelling inclining to project more into the popliteal space and externally. By September 21, 1880, free fluctuation was detected, when the purulent collection was aspirated, and proved to be distinctly extra-articular. The puncture soon ulcerated, when an exceedingly profuse discharge ensued, and continued for many weeks. After numerous counter-openings, oakum setons, etc., had been resorted to, the discharge diminished greatly in quantity, but the pain rather increased, until large doses of morphia were necessary to procure any relief. The joint became firmly ankylosed. During the month before operation he had two attacks of agonizing pain in the joint and its neighborhood, which so interfered with sleep and his appetite that he rapidly began to fail and was urgent to have his limb removed.

Accordingly, on January 17, 1881, I amputated the thigh at the junction of the middle and lower thirds, after which he made an unusually rapid recovery.

Upon examination, the tissues surrounding the joint plainly indicated marked disease, while the joint itself was obliterated by adhesions, except over the under surface of the outer condyle, with the corresponding facet on the tibia, and over the patella, with the subjacent portion of the trochlear surface. Here there had been distinct hemorrhages, stretching and distending the adhesions. The inner facet of the patella was slightly eroded. It seems not improbable that the two sudden attacks of pain before referred to were due to the stretching of the adhesions produced by the sudden giving way of blood-vessels pouring out blood into the two small cavities just described.

Dr. GROSS considered that in this case the trouble arose from inflammation of the lamella of bone just beneath the cartilage coating the patella. This is the usual way for

joint-trouble to commence, except when the synovial membrane is diseased. He thought that the eroded cartilage was the source of the hemorrhage and the pain, rather than any stretching of adhesions, which he considered impossible by any passive hemorrhages such as these effusions must have been.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A CONVERSATIONAL meeting of the Society was held at the hall of the College of Physicians, Philadelphia, January 26, 1881, Dr. Albert H. Smith, President of the Society, in the chair, at which Dr. E. T. Bruen read a paper entitled "Some Observations upon the Carlsbad Treatment," and Prof. H. C. Wood presented a case of nerve-disorder in a man about 40 years of age, presenting some unusual symptoms.

PERIPHERAL NERVOUS PHENOMENA DUE TO INTRATHORACIC GROWTH.

The following history of the case was given. The patient had suffered for many years with epilepsy, but without decided mental derangement. About a year ago he complained of contraction of the "cords in his neck," and at the same time a tumor was observed in the front of his neck which gradually increased in size. Recently he exhibited symptoms of hyperesthesia in the parts supplied by the brachial plexus, for which he sought treatment: he had not complained of dyspnoea, but the respirations were found to range from 26 to 30.

The tumor of the neck displayed upon his appearance before the Society was connected with the thyroid gland, and moved with the larynx in swallowing: it had the appearance of a cystic thyroid growth. The peculiar symptoms were the hyperesthesia existing around the shoulder and down the arm; a touch upon the skin gave him excessive pain. In the supra-clavicular fossæ were found some enlarged glands; there was evidence of pressure upon the left bronchus; the upper two ribs were depressed, and the venous murmur was less on the right side of the neck than on the left side.

In seeking for the cause of the symptoms, the speaker said that he believed it must be sought for within the chest, that there must be pressure exerted in the posterior mediastinum, producing irritation of the sympathetic ganglia and disturbance of sensation upon the right side. The left side is not seriously implicated in the pressure-symptoms. The source of pressure must operate unequally upon the two sides; it must be low down below the bifurcation of the trachea, because the respiratory movements of the glottis were normal and there was no laryngeal paralysis. As to the character of the growth, there was no evidence of aneurism, no pulsation, no

bulging near the sternum. He saw a probable explanation of the pressure in the enlargement of the deep bronchial glands (cancerous or otherwise), subsequently giving rise to neuritis extending throughout the region supplied by the brachial plexus.

To sum up: he considered the pressure of obstruction to be indicated by the sinking in of the supra-clavicular space and groove on the right side, the rapid respiration, the immobile ribs, and the delayed venous flow. These must be located below the bifurcation of the trachea in the mediastinum. The nature of the disease he considered problematical, but it was either carcinomatous or sarcomatous in all probability. In the absence of any signs of aneurism, the diagnosis of a tumor seemed necessary.

In reply to a question, he said that he attributed the peculiar position of the patient's head (*wry-neck*) to muscular spasm from immediate proximity to the inflamed glands. The condition of the thyroid gland could not explain the nervous trouble, since such a result of goitre would be very uncommon. The disease in the neck had existed for years, while the other symptoms were comparatively recent. Pressure upon the nerve-trunks causes pain, shooting down the arm to the hand; indeed, hyperesthesia is so-marked that pressure on any part causes pain extending over the whole affected area.

Prof. Roberts Bartholow inquired whether the previous history of cerebral disorder could not interpret the phenomena presented by the patient. He had had epilepsy and other evidence of cerebral mischief: could there not be intracranial disorder or pressure, occurring more particularly upon one side, which might give rise to the symptoms? He also asked whether the lecturer had taken into account the possibility of cervical pachymeningitis spinalis, as well as that of cerebral disorder.

Dr. Chas. K. Mills inquired what effect this comparatively acute condition had upon the epileptic seizures, and whether the latter were local, general, or unilateral.

Prof. Wood, in concluding the discussion, said that he supposed the patient had had epilepsy for years, but as to the character of the seizures he could not speak, as he had seen the patient for the first time only a week before. He would not claim that a man could have epileptic seizures for forty years without producing some symptoms of mental disease; but such disease was not marked in the present case, and he could not conceive of any condition of the brain which would produce such peculiar unilateral symptoms. Moreover, he could not see any cause for suspecting the existence of pachymeningitis.

THE CARLSBAD TREATMENT.

Dr. Bruen read his paper, "Observations on the Carlsbad Treatment."

Dr. Addinell Hewson said that he had

heard Sir Henry Thompson express strongly his belief in the value of the Carlsbad waters. The speaker had then asked what was his opinion of the artificial Carlsbad salts, and had been told that they were of little value: the natural water should be drunk on the spot, with all the hygienic and climatic advantages to assist in its restorative effects.

Dr. Bruen agreed with the last speaker that residence at the springs was a great advantage, not only because of the natural attractions of the place, but because the physician there has more complete control of his patients than at home.

SPECIMENS FROM HIP-JOINT AND THIGH AMPUTATIONS.

Dr. Chas. B. Nancrede presented a specimen consisting of a femur and a portion of the tibia and fibula of the right side, which he had removed by amputation at the hip-joint. The case was one of alveolar osteo-sarcoma of the femur, complicated by spontaneous fracture three months before the operation. The abdominal tourniquet was used, and Esmarch's bandage applied to the limb, so that no blood was lost except that contained in the flaps. It is probable that these precautions prevented the development of any degree of shock; for no marked depression was observed; the temperature was not over 101°, nor the pulse over 108; on this morning—forty-eight hours after the operation—the temperature was only 98°, the pulse was only 102, and the patient said that he felt very well.

A specimen of the knee-joint, which he also exhibited, was interesting from the explanation of the intense pain from which the patient suffered. The man had been treated for rheumatic inflammation of his right knee; subsequently a swelling developed in the popliteal space, fluctuation became marked, aspiration was resorted to, and sinuses were formed around the joint; but there seemed to be nothing to account for three attacks of intense pain occurring at intervals of some weeks. Amputation was performed, and it was discovered that the patella was slightly eroded, and that there was complete obliteration of the joint by adhesions, except under one facet of the patella and a portion of the outer condyle of the femur. The resulting cavities contained blood. The question arises, may not the separation of the adhesions by this effusion probably account for the attacks of pain? He thought that hemorrhage, to the extent found in this case, occurring in old adhesions in a joint, must be a rare condition. There was apparently very little active joint-trouble; but the exhaustion produced by the pain required operative interference.

THE PRESENT EPIDEMIC OF SMALLPOX.

Dr. M. O'Hara, referring to the epidemic of smallpox which had lasted throughout the winter, said that in two cases which he had

seen the hemorrhagic form bore a strong resemblance to scarlatina. He had not found the hemorrhagic cases to last long, not over the second or third day of the eruption, and on this account he did not consider them so contagious as the others which took the full period to ripen. He had not been able to trace any transmission from this variety in his own cases. He had some doubt in regard to the pathology of these hemorrhagic cases, whether or not the blood-disorder might not have been the primary affection connected with other causes and only started up by comparatively small amounts of the smallpox poison. He called upon Dr. Welch for information in regard to the epidemic.

Dr. Wm. M. Welch said that quite a large number of smallpox cases were being received at the Municipal Hospital, indicating that the disease was quite prevalent, as indeed it had been for several months past. In November, 1879, the disease reappeared in this city after an absence of about two years; the cases steadily increased during the whole of the winter of 1879-80, but they were not, however, very numerous; the number increased during the spring, but diminished during the warm weather of summer. In August they again rapidly increased, so that he doubted whether in the history of smallpox in Philadelphia there had ever occurred before in the month of August as many cases of the disease. During the fall and winter months the disease kept on increasing; and he believed that January would show a larger number of cases than December.

In regard to the hemorrhagic cases he had observed that they usually die during the first week of the eruption. The very malignant cases sometimes die at the beginning of the attack, before the eruption appears. There has been during the present epidemic a large number of hemorrhagic cases admitted into the hospital, though not quite so large a proportion as in 1871-72, and they do not prove so rapidly fatal, many of them living until the beginning of the second week. As regards contagion, he had no doubt that all cases of smallpox, whether hemorrhagic or not, are contagious. In hemorrhagic smallpox the vesicles usually contain blood, or blood mixed with serum, and this gives to the skin a peculiar livid, dark-purple, or indigo color. The conjunctivæ also become infiltrated with blood, the face smooth and glossy, hemorrhage occurs from the mouth and nose, and a little later blood appears in the urine, and frequently in the stools.

Dr. W. R. D. Blackwood said that he had noticed some points in regard to the present epidemic. In looking over his notes, he found that in the previous epidemic (1871) he had seen fifty-seven cases, in which there was only one instance of the hemorrhagic form, which died on the seventh day of the eruption.

In speaking of the portage of the disease,

or its spread from the sick to the healthy through an intermediate person not himself affected, he said that the disease had been thus communicated by attendants upon the sick, and he therefore had been especially careful not to see any smallpox cases until he had seen all his ordinary patients. He put off all such cases until the afternoon, and he had gone to a great deal of trouble in changing his clothes before visiting the contagious disease, and subsequently taking a bath and again changing his clothing before seeing his family or attending to other patients. He inquired as to the liability of physicians to carry smallpox or other contagious diseases: as the exposure is only for a short time, he believed that the danger had been much overrated.

Dr. L. K. Baldwin spoke of a case of hemorrhagic smallpox in which, after symptoms of "a cold" had existed for about a week, the eruption appeared on Saturday and the patient died on Tuesday. Both the mother and daughter had subsequently a slight attack of so-called varioloid. When the eruption appeared in the first case it was like purpura. The next day the entire surface was covered with livid patches, and on the third day he passed bloody urine and all the mucous membranes exuded blood. He died the next day, from exhaustion.

Dr. O'Hara, in referring to vaccination, said that he could not understand the variability and persistency of the disease if vaccination is an efficient protective. If a vaccination will take after a person has had smallpox, or a person could have smallpox after vaccination, he could not feel certain that he was fully protected when called to attend a malignant case of smallpox. At the same time, he would vaccinate everybody, even if they had a few smallpox scars on the face.

Dr. R. B. Burns said that in regard to the portage of contagious diseases by physicians, he had not been aware of any instance in which he had carried smallpox, but he had undoubtedly communicated scarlet fever to his own child. He reported a case where a person not exposed to any contagion, as far as could be ascertained, having been confined to the house for some time, developed hemorrhagic confluent smallpox, and died on the fourth day. He had recently seen a case in which, two weeks before the smallpox appeared, the patient had had an ordinary scarlatinal sore throat, fever, and eruption followed by general desquamation. The occurrence of the smallpox was remarkable as illustrating the occurrence of two blood-poisons in the same subject with such a short interval between.

Dr. Welch, in reply to several questions, said that probably a few cases of smallpox were not reported to the Board of Health; but a physician attending a case renders himself liable to a fine of fifty dollars if he does not report it promptly. In regard to the portage

of disease, he believed that smallpox contagion could be carried in clothing. On this account he always was careful to change his clothing and wash before leaving the hospital. He mentioned an instance where a nurse had carried scarlet fever to a child. In another case a female nurse attending a smallpox patient had visited her daughter, and her daughter's child subsequently took smallpox and died. He believed that many such cases occur: so that it becomes the duty of every physician to observe the greatest care to guard against carrying contagion.

Concerning the coexistence of contagious diseases, he had lately seen a case in which scarlet fever and smallpox ran their course together. A colored child was received into the hospital with a mild attack of smallpox. During the first week of the eruption scarlatina also developed, of which disease the child died after an illness of about two weeks. He had seen scarlet fever following smallpox. In 1872 a child with confluent smallpox was under treatment for four weeks, and during convalescence was attacked by scarlatina, and died three days subsequently. It had not been out of the hospital for a month, nor had there been any cases of that disease in the institution. It is possible that it had previously been exposed to the scarlatina poison and that it had lain dormant during the progress of the smallpox.

In regard to disinfectants, he did not know of any efficient aerial disinfectant: the only means of protection was vaccination. He had unbounded confidence in vaccination as conferring immunity from smallpox. Even after exposure to contagion it is effective, providing it is not too long delayed. It often happens that unprotected persons are sent to the hospital by mistake, suffering with other eruptive diseases, or unvaccinated children are sent with their parents. All such persons are at once vaccinated, and frequently with complete protection. He generally uses humanized virus, but sometimes resorts to the ivory points: in the hospital he much prefers the recent crust. He finds that the bovine virus is less rapid in developing, and is therefore less useful than the humanized after actual exposure has occurred. In such a case, where protection is not perfect, if the areola form before the variola eruption appears, the modifying influence is very evident in the course of the disease; otherwise it does not yield any protection, or at least cannot be depended upon. In 1871-72 very little bovine virus was used, but he had obtained complete protection by means of a crust even many times removed.

Dr. S. G. Skillern endorsed the last speaker's remarks about vaccination. In a family not protected the father was taken with confluent smallpox. The speaker vaccinated the entire family, including six children under fifteen years of age, with the humanized virus, which

took very well, and not one of them contracted the disease.

He cited the case of a former member of the Society who had a very sad experience of the portage of the disease: he carried smallpox to his wife. A physician should take especial care not to visit other cases after seeing a smallpox patient without changing his clothing.

Dr. Addinell Hewson, speaking of the protection afforded by humanized virus, said that his father (the late Dr. Thomas T. Hewson) and the late Dr. Otto were the first in Philadelphia to receive a crust direct from Dr. Jenner. This was in 1802, immediately on the excitement concerning the discovery of vaccination. From that date to the time of his death, in 1847, Dr. Thomas T. Hewson not only kept himself provided with good healthy virus, but kept records of every one of his cases, which he made it a rule to see on the third, fifth, seventh, and ninth days, so that he could state whether the process had been perfect or not both as to form and time. Such caution Dr. A. Hewson considered essential for success, and the neglect of it was in his opinion the occasion of reported failures. He recalled an instance of a family, all the members of which had been vaccinated in infancy by his father, where one took smallpox in adult life, and it was found upon examination of Dr. Hewson's records that this was the only one of the family in whom the vaccination had never been perfect. He believed that many persons are under the impression that they are protected who have never been properly vaccinated.

F. W.

REVIEWS AND BOOK NOTICES.

ON THE CONSTRUCTION, ORGANIZATION, AND GENERAL ARRANGEMENTS OF HOSPITALS FOR THE INSANE; WITH SOME REMARKS ON INSANITY AND ITS TREATMENT. By THOMAS S. KIRKBRIDE, M.D., LL.D., Physician-in-Chief and Superintendent of the Pennsylvania Hospital for the Insane at Philadelphia.

This book is the result of the ripest experience and most mature reflections of the oldest and ablest superintendent of a hospital for the insane in the United States, and can be commended in the heartiest manner to the careful study and candid examination of all who are interested in the care and treatment of the insane, whether as officers of hospitals for that class or those in the community at large who wish to be correctly informed in regard to the true principles of construction of such institutions and their proper management after they have been erected.

A careful study of this book will reveal the serious and numerous blunders in construc-

tion which would-be reformers have been so industriously urging within the last few years, and would also prevent that cheap construction which has been so much lauded, but which is ultimately by far the most expensive. From our observation, the zeal of these gentlemen is in inverse proportion to their knowledge and to their desire to be correctly and thoroughly informed on the subject.

The plans recommended and the particular arrangement of those plans in their interior details have stood the test of time and experience in every section of the country, and have been demonstrated to be the only plans which combine economy of construction, thoroughness of supervision, and the greatest efficiency of management.

The second part of the book, on the organization of hospitals and the treatment to be pursued, should be studied in the most careful and thorough manner by every one who wishes to be wisely and correctly informed in all matters pertaining to the interior management of hospitals for the insane. Though many men have allowed themselves to be carried away with the plausible theories of those whose knowledge is of the most superficial character and who have never spent time enough in a hospital to enable them to master the most rudimentary principles underlying the treatment of the insane, yet we are convinced that the precepts and principles laid down in this book will be found by every man of sound common sense and judgment to be those which can alone successfully guide any one in the proper care and treatment of the insane, and that adherence to any other will be a delusion and a snare and only result in lasting injury to the insane.

J. CURWEN.

COLORADO FOR INVALIDS. By S. EDWARD SOLLY, M.R.C.S. Eng., etc. Pamphlet reprint, pp. 28. Colorado Springs, 1880.

No one can read this pamphlet through without feeling glad that he has done so. So vague are the ideas of physicians in the East as to what are the conditions which should determine the choice of a climate in chronic illness that errors are constantly made, and, as a consequence, both physicians and climate suffer in their reputation. The pamphlet gives information which will tend to save the credit of both.

Dr. Solly first defines what is meant by a change of climate, and then shows how the three essential elements which constitute a climate—the qualities of the atmosphere, the soil, and the intensity of the sun's heat and light—are influenced in Colorado, which represents the mountain climate as distinguished from that of the sea-side. The rarity and dryness of the air, with their consequent effects upon temperature, are the chief peculiarities of such a climate. Dr. Solly then shows how the act of breathing is influenced by such an atmosphere; how morbid pro-

cesses in the lungs are influenced,—inflammations, with catarrhal and interstitial morbid products, blood-spitting, etc.; and, finally, enumerates the classes of cases which may reasonably be expected to benefit in a Colorado climate, and those which are unfavorably affected. Among the former are cases of phthisis not too far advanced, of asthma, of dyspepsia, and of simple nervous exhaustion without organic nervous disease. Among the latter are cases of valvular disease of the heart, especially with fatty degeneration; liver disease in the full-blooded, acute renal disease, etc.

Dr. Solly's broad principle is, "Send the thin-blooded to Colorado; keep the full-blooded away. Send those on the up-grade of life, and not on the down. In diseases—except in that of the lungs—where there is active change of structure, avoid the too rapid life which this climate causes."

In conclusion, the distinctive features of the principal centres of health-resort—Denver, Colorado Springs, Manitou, Pueblo, and Cañon City—are described.

The pleasing style in which the paper is written makes it very interesting, while the air of candor which pervades it commands also the respect of the reader.

IMPERFECT HEARING AND THE HYGIENE OF THE EAR. By LAURENCE TURNBULL, M.D., Ph.G., Aural Surgeon to the Jefferson Medical College Hospital, etc. Pp. 147. Philadelphia, J. B. Lippincott & Co., 1881.

Dr. Turnbull's little pamphlet on "Tinnitus Aurium," published some years ago, has grown in this the third edition to be quite a good-sized volume, and other matters have been introduced which will make it even more acceptable than the previous editions have been. The brochure is now, in reality, a collection of monographs on various subjects in otology, which will be likely to interest the non-specialist and general reader as well as the aurist.

The book includes well-considered articles on "the limit of perception of musical tones by the human ear;" "tinnitus aurium, and observations on aural or auditory vertigo, with diagnosis and treatment;" "the importance of the treatment of the naso-pharyngeal space, tonsils, and uvula in acute and chronic catarrh of the middle ear;" "artificial perforation of the membrana tympani;" "the mastoid region and its diseases, with illustrative cases;" "the hygiene of the apparatus of hearing, with the prevention of deafness;" "on the method of educating the deaf-mute at home, and on the selection of proper schools for the deaf and dumb;" "a comparison between the audiphone, dentaphone, etc., and the various forms of ear-trumpets." There is, in addition, an "introduction," in which the recent progress of otology is given.

We can most heartily recommend Dr. Turnbull's work to any one who desires to be

informed thoroughly on the points treated of in it. Dr. Turnbull has not only given his own experience and supplied plenty of illustrative cases, but he has also posted himself well on the literature of the subjects treated by him.

S. M. B.

DE L'ÉTAT DE MAL ÉPILEPTIQUE. By DR. ACHILLE LEROY, Bureau du Progrès Médicale. Paris, 1880.

This valuable brochure of about ninety pages is a detailed account of a number of cases dying in the so-called epileptic status after a prolonged history of chronic epilepsy. Some of the cases are those upon which Dr. Bourneville based his well-known thesis upon the subject. This epileptic status, when fully developed, seems usually, if not always, to end in death. The symptoms are very similar to those often seen in severe puerperal eclampsia,—violent frequently-repeated convulsions, with quiet or delirious coma and muscular relaxation, and decided rise of temperature. The diagnosis between eclampsia and the epileptic status must usually rest upon the history; but the great rise of temperature generally suffices to diagnose between it and uræmia. Apoplectic attacks may simulate it closely, but, except when the hemorrhage occurs in the neighborhood of the pons, rise of temperature is rare, and when occurring is probably always preceded by a fall: in cases of pons hemorrhage the convulsive symptoms are less severe, and the local paralysis usually betrays the lesion.

THE METRIC SYSTEM IN MEDICINE. By OSCAR OLDBERG, Phar.D. Philadelphia, Presley Blakiston.

Among those who are desirous of forcing the American medical profession to swallow, *nolens volens*, the metric system, Dr. Oldberg is by no means the least important, and, although one may feel slightly disgusted with the continuous effort to effect a doubtful reform, it is impossible not to admire the enthusiasm and persistency of the gifted pharmacist. The book contains one hundred and eighty smallish pages, occupied with all sorts of tables translating backward and forward metric, apothecary, and other weights, a long posological table, and numerous metrical formulae.

ANATOMICAL ATLAS. Edited by AMBROSE L. RANNEY, M.D. New York, G. P. Putnam's Sons.

This volume consists of one hundred and twenty-three very well executed steel plates, containing four hundred and thirty-nine designs, by Professor J. N. Masse, of Paris, and various diagrammatic cuts selected or designed by the editor. The scope of the book is that which seems to be the common property of anatomical artists; the execution better than ordinary; the size and compactness such as fit it for the library-shelf, the book-table, or the dissecting-room. The parts of the figures

have not their names upon them, but are numbered, referring, of course, to text-descriptions. This the editor thinks not a disadvantage: "While it does not assist a rapid review of a figure, but rather hinders it, this fact alone is the best proof of the advantages of the system. Plates must be studied, and not merely glanced at, to be of value to the student,"—a special pleading which, to our thinking, shows so ingenious a mind on the part of Dr. Ranney that if law, not medicine, were his profession, Fortune's wheel for him would turn merrily.

A TEXT-BOOK OF HUMAN PHYSIOLOGY. By AUSTIN FLINT, JR., M.D. Third Edition. New York, D. Appleton & Co.

One of the most hopeful evidences of the continual progress in the medical profession is the large sale which thorough scientific treatises like the present command. Whilst congratulating Dr. Flint, Jr., we would also congratulate the profession that so ponderous a tome as this physiology is so buoyant in the sale-market. A somewhat careful examination of various parts of the work has shown that it has been well brought up to the science of the day.

CONSTIPATION PLAINLY TREATED. By Dr. JOSEPH F. EDWARDS. Philadelphia, Presley Blakiston.

A little book of sixty small pages, containing nothing strikingly new or objectionable, but much that is sensible and pleasantly written.

GLEANINGS FROM EXCHANGES.

NEW REMEDIES—COTO, COTINO, AND PARACOTOIN; DUBOISIN; QUEBRACHO BARK; ASPIDOSPERMIN.—F. Rohne (*Virginia Medical Monthly*, March, 1881) gives a brief account of these new remedies, based chiefly upon personal experience. Regarding the first and last, although it is now some time since they were first brought to the notice of the profession, so little has appeared with reference to their action and uses that it will not be amiss to abstract some of Dr. Rhone's remarks. As regards coto, the coto bark is derived from a tree, growing in the forests of Brazil and Bolivia, which is sometimes classed with the laurels, by other authors with the terebinthines, but which, however, judging from its properties, possibly belongs to the Piperaceæ. Chemical analysis gives "an ethereal oil, an alkaloid, cotoin, which assumes a blood-red color on the addition of concentrated nitric acid, and paracotoin, which, similarly treated, gives a yellow color. There is also a soft and a hard extract. The presence of cotoin and paracotoin has its analogues in the cinchona barks, which yield more or less quinia, quinidia, or cinchondinia."

Prof. von Goit, of Munich, made the first experiments in Germany in 1875, partly with

powdered bark and partly with an alcoholic tincture:

R Coto bark, 1 part;

Eighty-five-per-cent. alcohol, 9 parts.

The results of these investigations led to the conclusion that the remedy is a specific in variously manifested diarrhoeas.

Since February, 1877, Fronmüller has used coto and its preparations about 200 times: 62 times in lung tuberculosis, 38 times in typhoid, 12 times in catarrhal diarrhoea, 8 times in acute articular rheumatism, 6 times in gastritis, 6 times in pneumonia, 3 times in menstrual colic, twice in bronchitis, twice in swelled feet, once in rheuma, once in anorexia, once in diphtheria, and once in albuminuria. Colliquative diarrhoea was present 93 times, and hyperidrosis 91 times. Both complications were frequently present together. The different preparations used were tincture of coto, 100 drops daily, cotoin, 0.1 to 0.3 grammes [= 1½ to 4½ grs.], frequently repeated, and paracotoin in larger doses; the soft extract was also used, in doses of 2 to 10 pills daily, each weighing 0.006 grammes.

Coto not only exerts a marked influence in diarrhoea and hyperidrosis, but is useful also in anorexia. In 85 cases of diarrhoea, coto tincture was used successfully 50 times, with benefit 26 times, and without effect in 9 cases. After several days, many cases of colliquative diarrhoea relapsed, but were easily controlled, and normal stools soon followed. The principal advantage in the use of this remedy is that it is well tolerated, and improves the appetite, instead of diminishing it, as do opium, tannin, silver nitrate, etc. In hyperidrosis, Fronmüller ordered tincture of coto 91 times,—34 times with perfect success, 36 times with improvement, and 21 times without result. The beneficial action appears to consist in the augmentation of the skin circulation, which usually lasts but one night, sometimes longer. Digestion is not impaired; the appetite is frequently improved. Tincture of coto was several times used in the morning as a stomachic against anorexia.

Cotoin was used 18 times in various diarrhoeas, with total cures in 9 cases, improvement in 6 cases, and with no result in 3 cases. In 18 cases of excessive night-sweats, it was successfully used in 8 cases, partly successful in 9 cases, no relief in 1 case. In five of these 36 cases, paracotoin was exhibited. One hundred drops of tincture of coto are equal to about 0.15 grammes [2.315 grs.] cotoin.

Rhone, adding the results of his experiments to those gained by other observers, concludes that coto and its preparations belong to the most active anti-diarrhoeal remedies. It is particularly useful in the case of children, because it is not narcotic. It is a valuable temporary remedy in hyperidrosis. Coto is well borne, and acts as a stomachic in some cases. It is of use in the diarrhoea of typhoid. All the preparations are not of

equal value: larger doses of paracotoin must be given. Cotoin has an agreeable taste, which makes it valuable for children; it may be given in powder, rubbed up with sugar. Pulverized coto may be given in the same way, or in emulsion, capsules, or wafers. The tincture is best diluted with water.

The uses of duboisin in ophthalmology are so well known to our readers that we shall not attempt to abstract Dr. Rhone's remarks on this drug.

Under the head of quebracho, Dr. Rhone gives a description of the different varieties of the quebracho and the method of its pharmaceutical preparation. He also quotes the description of its medical use given by Penzolt, of which an abstract appeared in this journal about two years ago, and adds to this the opinion of other observers going to show the value of this remedy in various forms of dyspnoea. There is, we believe, a fluid extract of quebracho now in the markets of this country.

INTRAVENOUS INJECTION OF MILK.—Dr. Austin Meldon (*Brit. Med. Jour.*, vol. i., 1881, p. 228) says that this operation has fallen into unmerited disrepute. He has performed it with success twenty times. Twelve injections were performed in cases of phthisis, in all of which the patients had reached an almost moribund condition, with the result that in every instance, without exception, life was prolonged. In one the patient had apparently only a few hours to live, yet after the operation he rallied so much that for some months he was able to follow his usual avocations. Other cases showed similar improvement. Diarrhoea when it existed was invariably checked; in fact, it was difficult to free the bowels for the first few days. Perspiration was at first increased, afterwards lessened. Cough was always relieved. Beyond this moderate retardation of the progress of the disease, not much can be hoped for by this treatment in phthisis. Four cases of pernicious anaemia were all cured by the injection. In one the transfusion was performed twice, in the other but once. In two cases of exhaustion from hemorrhage, both recovered. In two cases of exhaustion after typhoid fever, one recovered and one died.

Dr. Meldon adds that the difficulty of obtaining and defibrinating the blood and the danger of coagulation in injecting it account for the operation not having come into more general use. Milk, however, is always at hand. Some deaths have occurred during or immediately after the operation, but in these cases the milk was either acid or kept for too long a time or too large a quantity had been injected. The milk of any animal kept in confinement is slightly acid, even when it leaves the udder, and, as the blood will not tolerate the presence of an acid, it is not to be wondered at that very unpleasant symptoms often develop when milk in that state has

been injected. To prevent the possibility of this, Dr. Meldon always adds ten grains of carbonate of ammonium to each injection. This, besides rendering it certain that the milk is alkaline, prevents the depression which so frequently follows the operation. He invariably uses the milk of the goat, as it is easier to bring that animal in close proximity to the patient, thus avoiding any unnecessary delay between milking and the injection. He never uses more than six ounces of milk. When time will not allow fresh milk to be obtained, that at hand may be boiled and strained.

TREATMENT OF CANCER.—Mr. Jonathan Hutchinson (*Med. Times and Gaz.*, vol. i., 1881, p. 95), in a paper on the local origin of cancer, gives the following rules for treatment: 1. Primary cancers ought, wherever accessible, to be excised, or otherwise freely and promptly destroyed. 2. Since the process of absorption into the system is simply one of time, and since the prevention of it is the one point of importance to the patient, all operations for the removal of cancers ought to be done without any avoidable delay. 3. If the lymphatic glands are in the least enlarged, they ought to be taken out, the entire cluster being removed,—as well those which are not enlarged as those which are. 4. If the disease returns either in or near the cicatrix, or in the proximal lymphatics, it ought still to be regarded as possibly local, and a second free incision promptly undertaken. 5. After an operation for the removal of a cancer, the patient and his friends ought to be informed of the probability that the glands may enlarge, and impressed in the most forcible manner with the absolute necessity of immediate recourse to the surgeon should such be the case. 6. After the excision of a cancer which has involved the removal of a considerable portion of integument, great care should be taken, either by transplantation or some other manœuvre of plastic surgery, to secure a limp cicatrix which shall be wholly free from tension. 7. The removal of cancers by escharotics is a practice to be avoided (excepting, perhaps, under certain unusual circumstances), for the simple reason, if for no other, that it wastes invaluable time, and consequently involves increased risk of the contamination of the system.

ETHYLATE OF SODIUM IN NASAL POLYPUS.—Dr. B. W. Richardson (*Lancet*, vol. i., 1881, p. 242) has used the ethylate of sodium three times with remarkable success in the treatment of nasal polypus. In two cases the polypus was small, easily discernible, and readily within reach. The ethylate was applied to the pedicle of the polypus from a probe-point of cotton-wool held in the blades of a long, pointed, curved forceps, and in both cases the growth was destroyed during the application, and was removed by after-blowing of the nose, the one application suf-

ficing to effect a cure. The third case was one where the polypus had twice recurred after having been removed by a surgical operation. The polypus was large and far back, filling the nasal cavity. The pellet of wool as used in the other cases was here plunged into the centre of the growth and kept there three minutes. Its removal was followed by sneezing and discharge of blood, mucus, etc., and the cavity was found quite clear. There was some pain and irritation of the mucous surface for several days, but it seemed clear. The growth recurred, however, and after removing it again a few weeks later the spot from which it had grown was cauterized again, and a cure resulted. Dr. Richardson has great hopes of this treatment, which, if successful, will render a most annoying and obstinate complaint completely amenable to a simple plan of treatment. Dr. Richardson has also used the diluted ethylate in ozena with success.

ABSORBENT COTTON.—“Absorbent cotton,” says Mr. Frank L. Slocum, “has in the last few years taken such an important place among the necessities and conveniences of the pharmacist and physician that it is very desirable for the pharmacist to be able to procure or himself manufacture it. The manner in which it is prepared is kept secret, and there is no literature on the subject up to the present time, it is believed.”

“At the request of Professor Maisch, some experiments have been made, the following process yielding the most satisfactory results:

“Take of the best quality of carded cotton batting any desired quantity, and boil it with a five-per-cent. solution of caustic potassa or soda for one-half hour, or until the cotton is entirely saturated with the solution and the alkali has saponified all oily matter; then wash thoroughly to remove all soap and nearly all alkali, press out the excess of water, and immerse in a five-per-cent. solution of chlorinated lime for fifteen or twenty minutes; again wash, first with a little water, then dip in water acidulated with hydrochloric acid, and thoroughly wash with water; press out the excess of water, and again boil for fifteen or twenty minutes in a five-per-cent. solution of caustic potassa or soda; now wash well, dipping in the acidulated water and washing thoroughly with pure water; afterwards press out and dry quickly.”—*Druggists' Circular*, March, 1881.

A NEW SILVER SALT IN THE TREATMENT OF ORGANIC NERVOUS DISEASE.—Dr. Allan McL. Hamilton (*Lancet*, vol. i., 1881, p. 291) suggests the employment of the tribasic phosphate of silver,—a salt obtained by precipitating a solution of argentic nitrate with a solution of trisodic orthophosphate. The precipitate is washed with distilled water and dried in the dark. It is a heavy powder, of a lemon-yellow color, darkening slightly on

exposure to the light. Dr. Hamilton has given this salt for months, in doses varying from one-third to one-half of a grain, without any skin-discoloration whatever, and he says that its administration is unattended by the gastric irritability that so often follows the use of either the nitrate of silver or the phosphide of zinc; at the same time, its therapeutical effects are much more pronounced. It is best given with some such excipients as argol and glycerin, for vegetable substances tend to decomposition, and for this reason Dr. Hamilton has discarded confection of roses as an element of the pill-mass. The cases in which he has found this drug useful are sclerosis of the posterior columns; cases of more or less acute myelitis, with disturbance of the bladder and rectum; cases of sclerosis of the nervous substance; and cases of inveterate epilepsy the result of gross inflammatory intracranial changes. He is now giving the drug to patients with cerebral tumor and general paralysis, hoping to produce even in these cases some amelioration.

PERMANENT PICTURES ON THE RETINA.—Dr. W. C. Ayres (*New York Medical Record*, March, 1881) alludes to the fact that it is possible to produce pictures on the retina which can be examined after the death of the animal, and endeavors to answer the question as to whether these pictures can be made use of in medico-legal practice. If a rabbit is confined to a dark room until a sufficient quantity of "visual purple" has accumulated in the retina, and is then exposed to the light with proper precautions, an image of some external object can be made to form itself on the retina. As the visual purple disappears in the light, the animal must be killed immediately if the image is to remain long enough to be examined. While working with Kuhne in Heidelberg, Dr. Ayres endeavored to make an "optogramme," or retinal image of the kind under discussion, and procured a large negative of a photograph of Helmholtz, intending to present the picture as a testimonial to the distinguished professor. Arranging the animal with every possible precaution, and exposing the immobilized eye to the action of light coming from the picture of Helmholtz, Dr. Ayres, after a great amount of trouble, succeeded in producing a picture of Helmholtz,—that is, of his shirt-collar and the end of his nose. Dr. Ayres concludes that it is utterly idle to look for the picture of a man's face, or of the surroundings, on the retina of a person who has met with a sudden death, even under the most favorable circumstances.

A CASE OF CHRONIC VOMITING IN WHICH NO FOOD WAS TAKEN BUT KOUMISS FOR SIXTEEN MONTHS.—At a recent meeting of the Clinical Society (*Brit. Med. Jour.*, vol. i., 1881, p. 274) Dr. H. Sutherland read notes of the case of a girl 24 years of age on admission, who had been under his care for five

years. One year and seven months ago vomiting commenced; the attack came on at first only once a fortnight, but lately it had occurred always once, and sometimes five or six times, a day. As far as could be ascertained, there was no organic disease of the stomach, no tenderness on pressure, cachexia, nor any other constitutional symptoms. Every known remedy was tried to allay the vomiting,—bismuth, opium, hydrocyanic acid, creasote, carbolic acid, hyposulphites, etc.,—without any satisfactory result. All attempts to cure the case by dieting had failed; and the patient could keep nothing on the stomach as food, except koumiss, which she had taken for sixteen months. She was, however, able to retain a quinine and orange mixture, and also sherry in small quantities, for brandy made her sick immediately. The uterus was not displaced. In the discussion following the reading of Dr. Sutherland's paper the employment of koumiss was highly spoken of by several gentlemen, who recommend it especially in the vomiting of phthisis.

CRYSTALLIZED ACONITIA IN FACIAL NEURALGIA.—As a result of many experiments with this substance, Dr. A. Dumas (*Med. Times and Gaz.*, 1881, vol. i. p. 97; from *Jour. de Théráp.*) arrives at the following conclusions: 1. Duquesnil's crystallized aconitum is an energetic medicinal substance of great efficacy in facial neuralgias, especially the congestive, and in some other neuralgias *a frigore*. 2. It is useful in catarrhal affections in general, in which it may replace the different preparations of aconite. 3. It should be preferred to all other kinds of aconitum, which are ill defined and unequal in their actions. 4. It is of little efficacy in tic-douloureux, producing only temporary sedative effects. 5. Tolerance is obtainable for it as well as for other alkaloids when it is methodically administered. 6. It may be continued for a long time without any fear of its becoming accumulated in the system. 7. It should be given in very much divided doses, with due intervals,—at first in small doses, and gradually increased. 8. Except in tic-douloureux, it should be continued only in medium doses. Granules carefully dosed up to $\frac{1}{20}$ grain of the alkaloid or $\frac{1}{10}$ grain of the nitrate should be preferred.

NITRITE OF AMYL AS A DISINFECTANT OF URINE.—M. Weiser claims for nitrite of amyl remarkable disinfecting powers, and employs it as a disinfectant in chronic catarrh of the bladder, using it as an injection in the proportion of three drops to three hundred grammes of water. For the disinfection and conservation of urine to be submitted for examination, he prefers nitrite of amyl to phenic acid.

ARGYRIA FOLLOWING THE FREQUENT PHARYNGEAL APPLICATION OF NITRATE OF SILVER.—A woman aged 46 years noticed a bluish discoloration of the entire cutaneous

surface following repeated pharyngeal cauterizations with the silver nitrate stick. Similar cases have been recorded, one by Krishaber and a second in the *Gazzetta Medica Italiana* (1862). The absorption of the silver salt takes place in part from the mucous surface of the cauterized portion, but principally from the intestinal surface, the products of cauterization being conveyed to the alimentary canal.—*Archives Méd. Belges; Drugists Circular.*

MISCELLANY.

GUY'S HOSPITAL.—It is assumed that the difficulty at Guy's Hospital is now virtually terminated in favor of the medical staff, by the publication of a series of regulations bearing on the nursing arrangements to be observed in future. These virtually concede the principal demands originally made by the physicians and surgeons, and they provide, further, for the proper limitation of the authority and duties of the head of the nursing department. A lady-nurse is to have charge of each ward, and to have under her direction two head-nurses; and special provision is made for retaining the services of the nurses in the wards to which they are appointed, thus removing the highly-objectionable feature of frequent changes, against which there has been a very justifiable outcry from the first occurrence of the differences. Another improvement is that at the end of twelve months' service as probationers candidates for the post of nurse will be required to exhibit a certificate, signed not only by the matron, but also by the medical officers.

MEDICO-DRAMATIC CRITICISM.—The *Lancet*, calling attention to Mr. Tennyson's new drama, "The Cup," now being played in London, says that the male and female actors who have been poisoned by the same draught show quite different toxic symptoms. Mr. Irving says,—

"I pray you lift me,
And make me walk awhile; I have heard
These poisons may be walked down: my feet
Are tons of lead."

He is then partially raised by one of his retinue, but dies apparently in convulsions, with marked opisthotonus. On the contrary, Miss Ellen Terry, who has swallowed somewhat less of the poison, lives long enough to see the other party die, and then herself succumbs quietly in the arms of one of her handmaids. The feeling of weight in the limbs points to opium-poisoning; but, then, why the convulsions? and why do not both actors show the same symptoms?

PROFESSOR R. O. COWLING, so well known as editor of the *Louisville Medical News*, died April 2, 1881, of rheumatism attacking the heart.

BACKACHE.—Mr. Wm. Squan, writing to the *British Medical Journal* (vol. i. p. 229), says that many weak-looking girls owe the pain in the back which they complain of as being worse in the morning to sagging of the bed. He suggests a pillow under the spine.

A NEW public chemical laboratory is about to be opened in Paris, where there will be experts at the service of the public prepared to analyze on demand all articles of consumption,—wine, coffee, chocolate, etc.,—for very small fees.

"PORTAGIOUS" DISEASE.—Medical Inspector Gibbs, U.S.N., suggests in a letter to the *New York Medical Record* the word "portagious" to designate those diseases produced by portable germs, which are carried into contact, as the etymology implies.

DR. CANQUOIN, the inventor of the paste of chloride of zinc known by his name, has recently died at Dijon, in his eighty-sixth year.

NOTES AND QUERIES.

OBITUARY.

ARMY MEDICAL SCHOOL, ROYAL VICTORIA HOSPITAL, NETLEY, 30th March, 1881.

MY DEAR SIR,—I cannot describe the sorrow I feel at the sad tidings which your circular note of the 25th ultimo has just conveyed to me, nor can I in any adequate manner express my sense of the immense loss surgical science has sustained—especially the science of military surgery—by the death of your indefatigable and talented assistant, Surgeon Otis. Still I feel I must write a few words to say how deeply I sympathize with you and with all the medical officers under your direction in the grievous loss you and they have sustained in the death of so distinguished a member of your corps. Military surgery and all who are engaged in its practice in every part of the world—and, I might add, every one who may happen to be in need of military surgical help—owe, under the liberality of the United States government and your auspices, a debt of gratitude to Surgeon Otis which, though it can never be repaid, will never be forgotten as long as the great "Surgical History of the War of the Rebellion" and his other admirable works exist. It is with perfect truth that you remark the death of Surgeon Otis will be deeply deplored not only by the members of the medical profession in his own service and country, but also by the medical profession of the whole world.

Believe me to be,

My dear Sir,

Very faithfully yours,

[Signed.] THOMAS LONGMORE,
Surgeon-General, etc.

MAJOR-GENERAL J. K. BARNES,
Surgeon-General,
United States Army, etc., etc., etc.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM APRIL 3 TO APRIL 16, 1881.

MOFFATT, P., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty at Camp Spokane, W. T., and ordered to Fort Walla Walla, W. T., until further orders, for medical treatment. S. O. 35, Department of the Columbia, March 20, 1881.

BIRMINGHAM, H. P., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—So much of par. 1, S. O. 62, March 17, 1881, from A. G. O., as relates to him, is suspended until May 1, 1881. S. O. 85, A. G. O., April 14, 1881.

COOPER, GEORGE E., LIEUTENANT-COLONEL AND ASSISTANT MEDICAL PURVEYOR.—Died at San Francisco, Cal., April 13, 1881.